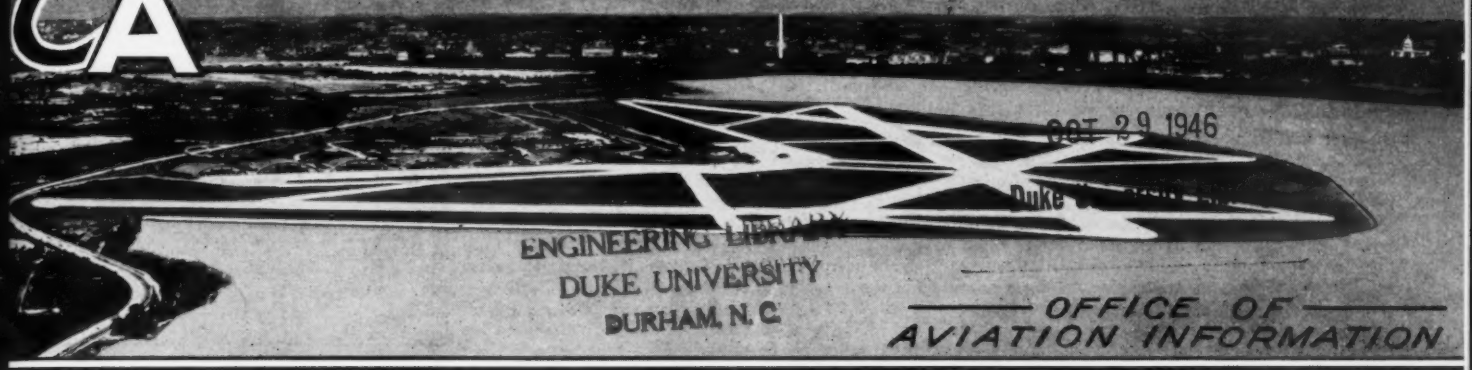
CAA JOURNAL



OCT 29 1946
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OFFICE OF AVIATION INFORMATION

PICAO Technicians Viewing U. S. Radio Navigation Aids

Technicians of 62 nations are witnessing demonstrations of U. S. radio aids to air navigation at New York and Indianapolis from October 7 through 26.

The demonstrations were requested by the Provisional International Civil Aviation Organization (PICAO), which is attempting to standardize the facilities used in international flying. Similar demonstrations were conducted in the United Kingdom during the previous three weeks and, when the U. S. presentation is completed, the delegates will convene in Montreal to discuss a uniform system of radio aids to world air navigation. They will meet there on October 30 under the auspices of the PICAO Air Navigation Committee, Radio Technical Division.

To Show Advanced Equipment—The Civil Aeronautics Administration, the War and Navy Departments, the Coast Guard, and manufacturers are demonstrating in flight or exhibit on the ground some 50 types of the most advanced radio, radar and television equipment for safe and speedy international air operations.

The demonstrations started October 7 in the New York area, where the delegates visited the CAA overseas communications stations at Sayville, Long Island, and the air traffic control and other operations at LaGuardia Field. On October 10, demonstrations began at the CAA Experimental Station in Indianapolis, and will continue through October 23. The delegates will then return to New York City for demonstrations on October 25 and 26 at the Airborne Instrument Laboratory operated by Aeronautical Radio, Inc., at Mineola, and at Coast Guard "Loran" installations.

Seven Classifications—The aids are divided into one general and six major classifications, according to the kind of flying for which they are designed. Together they represent the combined knowledge and accomplishments of business and government agencies in the important field of marking the airways, making air navigation safe and adding to the efficiency and regularity of scheduled air transport.

Some of these aids represent many years of research and development. Virtually all of them have involved many engineers in their production. The aids being shown by the CAA in particular are a composite of the experience and skill of many engineers and companies, since the CAA consistently selects the most promising aids and carries them on to practical application, depending always on the collaboration and cooperation of other federal agencies and private enterprise.

In the general classification the one project is the Army's "push-button" control system, and a C–54 plane at Indianapolis is giving daily demonstrations.

Under Long Range Navigation the CAA is showing its low frequency, omni-directional range; the Coast Guard is showing its Loran system for overwater navigation; and the Radio Corporation of America, its Loran receiver.

Under Short Range Navigation the CAA is showing a VHF receiver, its VHF radio range and a distance measuring equipment. Under this heading the Air Forces has a search radar set, a weather reconnaissance attachment for a search radar set, and two radio compasses; Radio Corporation of America has its own VHF navigation and communications

(See PICAO Technicians page 126)

CAA to Guard New Frequencies For Private Aircraft Users

Two new frequencies for private aircraft use will be guarded by the Civil Aeronautics Administration beginning January 1, 1947.

In a reassignment of frequencies in the "very high frequency" band, the Federal Communications Commission listed 122.1 mc for use by private aircraft en route for air-to-ground communication. All CAA communications stations will maintain a constant guard on that frequency after January 1.

For air-to-ground communication at airport control towers, the CAA will guard 122.5 mc after January 1.

The Federal Communications Commission is considering new allocations of the VHF band 108 to 132 mcs in accordance with recommendations made by the Radio Technical Commission for Aeronautics. Included in this band are frequencies 122.1 and 122.3, which are set aside for private aircraft en route, air-to-ground, and 122.5 through 122.9 which are set aside for private aircraft to towers, air-to-ground.

For the present the CAA will stand guard on only the two named, 122.1 and 122.5, and will continue to guard the present frequencies 131.7 and 131.9 mcs until further notice.

Wright Outlines Essential Steps For Airport Aid

For eight years, ever since the passage of the Civil Aeronautics Act of 1938, a national airport program always has been just over the horizon. Now at last we are on the target, T. P. Wright, Administrator for Civil Aeronautics, told the National Aviation Clinic in a speech describing the steps communities must take to get federal aid for airport projects.

To Hold Hearings—Emphasizing that the program will be administered on the basis of democratic decentralization, Mr. Wright said that the public hearings to start in Washington, October 28, will give all interested groups a voice, within the framework of the legislation, in the final determination of the procedure to be followed.

The proposed rules and regulations are set forth in 17 closely printed pages of the Federal Register. In the main, they restate in a form suitable for administration the requirements of the Act. These are necessarily in "lawyer language", Mr. Wright said. But he pointed out that when you cut through the verbiage, you will find that they emphasize direct dealing with the federal government at a local level.

CAA Key Man—"The district airport engineer of the CAA is a key man in this program," Mr. Wright said. "His office in your state will be the place to go with your airport problem. He or one of the specialists on his staff will give you all possible assistance, although they will not compete with private engineers on the drawing of detailed plans—this is one of the jobs we are leaving to local initiative."

Following are the essential steps outlined by Mr. Wright for obtaining federal aid for airport and seaplane projects:

Submit Project Request—"First, you submit to the CAA district engineer what is called a 'project request,' using a special form that he will be glad to supply. This is a general statement as to the nature of the project for which aid is requested and the readiness of the sponsor to go ahead if approval is given. Its chief purpose is to guide the CAA in formulating its annual program, which represents the portion of the National Airport Plan to be undertaken during the next fiscal year.

"We are now engaged in drawing up our new National Airport Plan, bringing up to date the one we

(See page 131)

AIA at Work on Noise Problem In Aircraft Engines and Propellers

The Aircraft Industries Association has assured T. P. Wright, Administrator of Civil Aeronautics, that every effort is being made to reduce aircraft noise.

Manufacturers are attacking the problem of noisy propellers and engines in transports as a commercial "must", since conventional cabin soundproofing has reached a point of no return, the AIA reported. The Association also stated that it has had a committee at work on the noise problem since early this year.

Letter to Wright—These facts are revealed in a letter sent to Mr. Wright in response to his request that the Aircraft Industries Association, the National Advisory Committee on Aeronautics and the Air Transport Association join in an attack on aircraft noise. The text of the AIA letter follows:

"The aircraft manufacturers, particularly those specializing in large airplanes, are increasingly aware of the noise problem because the use of larger engines has resulted in internal noise levels higher than satisfactory for commercial operation.

"The external noise problem seems to have been aggravated by a number of factors. Over two of these we can exert control. One of them is the tendency on the part of some manufacturers to use engine-propeller combinations resulting in noise levels higher than is necessary for the power available. This is usually the result of excessive propeller tip speeds, and is poor engineering from any angle; it is bad for the propeller, bad for the engine, fatiguing to the pilot and passengers, as well as creating a nuisance. It may be necessary to set up within industry some internal policing system to prevent such nuisances.

Must be Solved—"The other of these two factors is the result of the use of increasingly powerful powerplants. The greater the power, the more the noise; we have not been too successful in reducing this ratio of noise to power. The problem is being vigorously attacked and we can assure the CAA that it will be solved because it must be solved to provide acceptable sound levels in the cabins of our commercial airplanes. A reduction of the noise at the source seems to be the only way we know to economically reduce the noise level in the cabins—we have reached a point of no return for conventional soundproofing. The solution will, therefore, benefit the external hearer as well as the cabin occupant.

"Before outlining the methods available to us for reducing such noise, we should explain the interrelation between propeller noise and engine-exhaust noise. The nature of sound is such that if the propeller noise and the engine-exhaust noise are equal, even a drastic reduction in either one alone will not result in an appreciable audible reduction of total noise. The relative magnitude of the exhaust noise and propeller noise changes rapidly as the engine rpm is reduced from take-off and climb rpm to cruising rpm, the propeller noise decreasing much more rapidly than the exhaust noise. Under cruising conditions the exhaust noise and propeller noise may be of the same order of magnitude. There is, of course, a wide variation in the noise produced by various types of exhaust systems installed on the same powerplant.

"Great reductions in sound energy are necessary to give appreciable reductions in audible sound. A 3 decibel reduction, for instance, is audible but certainly not markedly so; such a reduction actually halves the acoustical power output. Keeping the above in mind, the state of the art is approximately as follows:

"*Propeller Design*—For a given propeller tip speed and power, changes in blade form, disc area, etc., can vary the sound output through a range of approximately 20 decibels. This indicates a range worthy of investigation.

"*Heat Pumps*—The use of a heat pump in connection with the engine exhaust provides reductions in noise level of the order of 10 decibels, without commensurate reductions in jet thrust.

"*Compounding*—The use of compounding (exhaust turbos, etc.) usually results in noise reductions. The simplest turbo installation may not give appreciable reductions but the more complicated compounding, where energy is actually delivered to the drive shaft, may be expected to result in appreciable reductions.

"*Exhaust Locations*—Progress has been made in use of the wing and nacelles to shield noise which would otherwise be airborne from the source to the cabin wall. Such shielding can be employed to prevent radiation of exhaust noise to the ground.

"*Jet Power*—We are not sure of the effect of jet planes on the ground hearer. The high frequencies are usually lower, and the time the noise is heard certainly is reduced. We hope the net result will be an improvement.

"We have listed above some of the things we know will reduce aircraft noise at its source. The industry is doing everything in its power to develop additional means. You may be sure that the problem will continue to be vigorously attacked by the airplane, engine, and propeller manufacturers. Our Aircraft Research and Testing Committee established a noise reduction subcommittee approximately six months ago to make an intensive study of the noise problem."

Airman's Guide Goes On Sale

Effective today (October 15) the free distribution of the bi-weekly Airman's Guide and the semi-annual Flight Information Manual will be limited to all continental U. S. airports, CAA communications stations and CAA towers, where they will be accessible for consultation.

Because of increased costs of printing and limited appropriations, it is necessary that the CAA discontinue the free distribution of these publications to private pilots, scheduled and non-scheduled carriers and other non-governmental aviation activities.

With constantly increasing aviation activity and the certification of thousands of pilots, all eligible to receive these publications, the free distribution list has increased far beyond budgetary allotments.

These publications, however, will be made available on a "for sale" basis, both by single copies and annual subscription, from the Superintendent of Documents, Government Printing Office, which has set the price for single copies of the Airman's Guide at 30 cents each; and the Flight Information Manual at 15 cents each. The annual subscription price will be $7.50 to cover 26 bi-weekly copies of the Guide and the two semi-annual issues of the Flight Information Manual. Where bulk subscriptions of 100 or more are made, there will be a 25 percent reduction in price.

The decision to eliminate the gratis distribution of these two publications was reached by the CAA reluctantly, following thorough exploration of alternate possibilities with representatives of industry groups. At the conferences these organizations expressed the feeling that limitation of distribution might be detrimental to safety, but the CAA has been unable to find any means of financing continued publication other than to put these manuals on sale.

Vol 7 October 15, 1946 No. 10

CAA JOURNAL

Department of Commerce
W. Averell Harriman, *Secretary*

Civil Aeronautics Administration
T. P. Wright, *Administrator*

Issued on the 15th of each month. Subscription $0.50 a year in the U. S. and Canada. Foreign countries, $0.75. Sold by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Approved by the Bureau of the Budget.

PREPARED BY CAA AVIATION INFORMATION

PICAO Technicians

(Continued from page 125)

receiver, an automatic direction finder and a receiver for personal aircraft.

Instrument Landing Aids—Indicating the importance all attach to instrument approach and landing equipment, ten important developments are being shown and demonstrated. The CAA is demonstrating its three-element instrument landing system which now is being installed at 79 stations on the federal airways. The CAA also is exhibiting its work in developing automatic approach control by connecting the cross-pointer instrument to the electric automatic pilot. Another CAA exhibit is the improvement of the runway localizer, part of the continuing improvement of the ILS system, and important CAA work in development of approach light systems as supplements to instrument landing radio equipment.

The Air Forces have on exhibition their gyrosyn compass, designed to improve the pilot's approach to the localizer course in the instrument landing system, and are demonstrating a newly developed flag-alarm system for use on the cross-pointer by which instrument landings are made to serve as a warning to the pilot of possible incorrect operation.

The Sperry Gyroscope Company is demonstrating its gyropilot automatic approach control by which all the operations of the airplane are taken over mechanically down to the last few feet of the landing, and its micro-wave instrument landing system now about ready for line production.

Operation of the ground controlled approach radar equipment which the CAA has had under test at Indianapolis also is to be demonstrated.

Air Traffic Control Devices—Four important contributions to air traffic control are to be demonstrated. The CAA is exhibiting its radar-equipped airport traffic control tower in routine operating handling the air traffic that uses the busy Indianapolis terminal, demonstrating the use of a radar scanning screen to supplement the information ordinarily used by the controller. The CAA also is demonstrating its progress thus far in development of a vertical separation indicator including ground and air-borne equipment.

The Air Forces are showing a radar search set for use by control tower operators which permits the use of a map of the area being controlled.

The Teleregister Company is demonstrating its automatic control of air traffic by which manual methods are used in light traffic and machinery takes over when there are 40 to 50 movements of planes.

Radio Corporation of America is showing several air-borne and ground transmitters and receivers for use in the highly important communications field of air transportation. RCA and Western Electric are each showing teletype equipment for communications.

Caribbean Meeting Lays the Groundwork For Air Facilities

Nine international air traffic control centers to maintain safe separation of planes on the expected 7000 weekly flights in the Caribbean, and eight rescue centers were among the services charted during the three-week Washington session of the PICAO Caribbean regional meeting.

Recommendations of the 21-nation meeting, which was completed September 13, have been turned over for final endorsement to the parent body, the PICAO interim council in Montreal.

Big Tourist Potential—A big expansion of air services to and within the region is expected in order to take care of a tourist potential of 600,000 persons a year—triple the previous peak.

To handle the traffic, present lines are stepping up their frequencies, and more carriers are entering the field.

According to a route-frequency map submitted to the route committee, Pan American will increase schedules between New York and Puerto Rico from three to six daily by Jan. 1, 1947; American Airlines will double its Mexico City runs from Dallas and El Paso to six daily; National Airlines will step up its Tampa-Havana and Miami-Havana service from one to three daily; and a wide variety of services will be provided by Eastern Air Lines, Chicago and Southern Airlines, Braniff Airways, Panagra, Western Air Lines and Caribbean Atlantic Airlines.

45 Carriers in Area—A total of 45 air transport companies will soon be operating either international or domestic services within the Caribbean area which stretches broadly from the U. S. Gulf Coast to the Amazon River. At present there are 30 companies from 12 nations which include Brazil, Colombia, Cuba, the Dominican Republic, France, Honduras, Mexico, Netherlands, Nicaragua, the United Kingdom, the United States, and Venezuela. Routes through the region are also being planned by Peru and Canada.

The Caribbean system, when put into effect, will provide greater safety and integration of all of these operations in the area.

Following are a number of the recommendations:

Air Traffic Control—Proposed sites of the nine international control centers are Miami, New Orleans, Havana, Cuba; Kingston, Jamaica; San Juan, Puerto Rico; Curacao, Dutch West Indies; Piarco, Trinidad; Balboa, Canal Zone; and Mexico City.

In addition to control centers in the busiest areas, "approach control" to expedite landings in instrument weather was proposed at 17 points, including Houston, Miami and New Orleans in the United States.

Search and Rescue—To aid aircraft in distress, plans call for strategically located helicopters, long and short range aircraft and boats which could move speedily into action.

The eight rescue coordination centers would be located at Bogota, Mexico City, Miami, Naval Air Station (Trinidad), Balboa, San Juan and La Guaira (Venezuela). An additional 18 points were recommended as "alerting centers" which would summon one of the eight rescue centers to action.

Recommended equipment includes: 18 long range aircraft available for search duty at six points; 23 intermediate and short range planes maintained at 21 places; 11 helicopters (when they become available) at six high density traffic centers; and rescue boats operating from 15 sites in five nations.

Standard Measurement Units—In a compromise between the English and metric system, the delegates agreed to compute distances in nautical miles; use feet for altitudes, elevations and dimensions of aerodromes; feet per minute for vertical speed, and knots for horizontal speed. Under this system the U. S. pilot will relinquish his familiar land mile for measuring area, and the term "miles per hour" for speed. Proponents of the metric system will relinquish the kilometer.

With regard to units of measurement for atmospheric conditions, U. S. civil pilots will fly the Caribbean recording wind velocity in knots instead of in miles per hour and recording visibility in nautical miles and tenths instead of in statute miles. Cloud height will continue to be reported in feet and altimeter settings in inches. Temperature will be reported in degrees Centigrade.

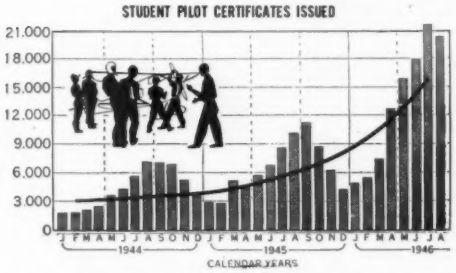
Weight will be given in kilograms and time will be designated in Greenwich meridian time on a 24-hour basis, normally used by all international airline operators.

This system follows closely the units of measurement adopted in both the North Atlantic and European-Mediterranean regions for international civil flying.

Aviation Information—Plans were made for a Caribbean Airman's Guide, covering in-flight procedures and facilities, and another publication for ground personnel covering Caribbean procedures on customs, communications, etc., with information for both being collected at a center in Miami.

Also recommended was a regional system of notices to airmen to be collected and circulated within 24 hours of receipt by offices at Miami, San Juan, Port of Spain, Balboa, Guatemala City and Mexico City. These "NOTAMS" would inform anybody flying into the region of hazards to air navigation, changes in radio aids, current condition of airports, and similar data essential to safety. Member states receiving the regional "NOTAMS" would be expected to repeat them to aircraft in flight and in radio broadcasts where and when necessary for the safety of air navigation.

Student Certificates Reached All-time Monthly High in July



Student pilot certificates issued by the Civil Aeronautics Administration reached an all-time high for one month when a total of 21,935 was issued in July.

The previous peak for this type of certificate was 20,466 in September 1940 under the Civilian Pilot Training Program.

Prior to July, CAA had issued a total of 64,253 student pilot certificates in the first six months of the year. The tremendous increase in private flying interest is shown by the comparison with the 1945 statistics, which record a total of 74,000 issued during the fiscal year. The 21,935 new certificates issued in July plus the 64,253 for the first six months of the year total 86,188, or 12,188 more than in the entire year of 1945.

The rapid increase in certificates also holds true in the ranks of private pilots. On July 1 there were 143,717 private pilot certificates out, an increase of 15,510 over the 128,207 figure on January 1.

The increase in the number of both types of certificates is due largely to the flight training available to World War II veterans under the GI Bill of Rights plus the natural increase in civilian interest since the close of the war.

CAA to Help Train Police in Enforcement Of Local Air Laws

Training of state police in the enforcement of aviation laws will be continued by the Civil Aeronautics Administration, in cooperation with state authorities, following successful classes for 1,000 members of the Pennsylvania State Police.

In two encampments at Indiantown Gap, September 14 and September 19, James V. Bernardo, of the aviation training staff of the CAA, introduced the general subject to the 500 officers who attended each meeting. Their further training will be conducted by five police officers who hold commercial pilot certificates, and who were given a four-day intensive training course by Bernardo, H. G. Myers of the Civil Aeronautics Board, and other CAA officials at Harrisburg July 29 through August 2.

Offer Two Courses—Two courses have been offered by the CAA to the state aviation officials for training of local law enforcement officers. The first is a one-day course which offers the minimum essentials in local aviation law enforcement. The second is a comprehensive course of three days duration for states that desire to go into greater detail. The CAA's manual on aviation law enforcement will be available to all state aviation agencies.

The CAA offers the recommendation that police who have had some experience in flying, preferably those with pilots' licenses, be given the training. The course would inform them of the limits of authority of the CAA, the state and the smaller political subdivision; their responsibility in detail in the investigation of accidents; details of their reports to the CAA and the Civil Aeronautics Board; general knowledge of certificates for pilots and planes and the Civil Air Regulations.

August Output of 4,790 Planes Sets New Production Record

Airplane production rose sharply in August to the new peak of 4,790 planes ($22,404,000 valuation) topping June production, previous high month, by 1,300 planes. This brings the 1946 total up to 22,175 planes.

In comparison with the July output of 3,452 planes ($20,856,000), August shipments represent a 39% increase in number and 7% in value.

Civil Plane Production—A total of 4,683 planes ($12,665,000) was shipped to civil customers—a 38% gain in numbers and 20% in dollar value over July. Personal plane manufacturers increased their output by almost 1,300 planes, from 3,358 to 4,656 units.

The August 1946 civil plane shipments follow:

	August	*July*
Total	4,683	3,388
By number of places:		
2-place	4,189	3,087
3- and 4-place	467	271
Over 4-place	27	30
By number of engines:		
1-engine	4,658	3,363
Multi-engine	25	25
By total rated hp (all engines):		
1-74 hp	2,622	1,915
75-99 hp	1,363	1,076
100-399 hp	670	366
Over 399 hp	28	31

Military Plane Production—Military airplane shipments (excluding experimental, secret and confidential aircraft) increased from 64 to 107 planes. Despite the sharp numerical increase, value declined from $10,315,000 to $9,738,000. However, military shipments acounted for almost half of the combined value of civil and military plane production during August. The average unit value of military planes shipped in August was $91,000 as compared to $2,700 for civil planes.

Brazil Opens Up Huge New Tract in Interior Slated for Future Cross-country Air Route

Brazil, fabulous country which is still discovering new land and wealth within its own borders, has just this year opened up a tract of land about twice the size of Texas in the Mato Grosso-Goyaz area beginning about 900 miles northwest of Rio de Janeiro.

This is a part of Brazil which may some day be on the air route U. S. airliners are planning across country from Bogota through Manaos to Rio de Janeiro.

Went on Survey Trips—At the invitation of the Brazilian government, Cloyce Tippett, coordinator in the CAA office in Brazil, has recently made a number of flights into the new country to survey route possibilities and observe the two new air strips built at Aragarcas and Rio das Mortes in the center of Brazil.

On his recent trip back to the United States after four years in Brazil, Mr. Tippett brought a first hand account of the latter-day explorations, and Brazilian aviation development.

The expeditions, sent in by the Brazilian government to explore, develop and open the territory for colonization, found new rivers, uncharted mountains, gold, diamonds, and Indians living in grass huts.

The airplane age has caught up with the Chavanti Indians who until now have been leading their secluded lives in villages like the one shown above, safe in Brazil's interior.

The first survey flights for the mission were made in a single-engine Fairchild by Major Basilio of the Brazilian Air Force. With no airports and no filling stations, he carried extra cans of gasoline and landed on river beaches and clearings to refuel.

Airline Stops—Flights into this part of the interior now have the benefit, at least, of two air strips large enough to land DC-3 aircraft. The strip at Aragarcas is being used as a stop by a Brazilian airline on its 3000-mile route from Rio de Janeiro to Venezuela. The airline makes one round trip over the route each week. The Rio das Mortes strip is about 100 miles west of Aragarcas.

The trail has also been blazed from the interior city of Cuiaba north to Manaos in the Amazon country by a first flight made four or five months ago. Until then no flights had been made between the two points. Acting as advance scouts for the ground mission doing the mapping job, the planes found impassable jungle several hundred miles out of Cuiaba where the ground mission will have to make its way by river.

First Contact with Indians—Essential part of the mission has been that of making friends with the Indians in the area. Only recently were expedition members able to make personal contact with the Chavanti Indians and exchange gifts. Members of the expedition first dropped gifts from their planes. These the Chavantis wouldn't touch. However, they took gifts placed in the hunting areas and left arrows with the tips cut off in return. This finally led up to an apparently friendly meeting. One tribal chief remained unreconstructed, however. There weren't enough trinkets to go around, and the chief who was slighted shot his arrows after the expedition as it left.

This part of Brazil, Mr. Tippett said, has a favorable climate for colonization and is scrub brush country rather than jungle.

Brazilians, Mr. Tippett reported, accept the use of the plane in the same matter of fact manner that they learn of the discoveries of gold deposits. Neither is new to them.

Skipped Trains and Cars—People who have never seen a train, and have scarcely used an automobile, take a plane as a matter of course. Except for the waterways, the plane is the only possible way to get around through the interior.

One can now fly all through Brazil using the same language and techniques as those used in the United States, Mr. Tippett said.

The training that Brazilian pilots, mechanics, and airways technicians have received in the United States through the inter-American program is largely responsible for this "common language".

Field work in Brazil has also brought results. First stationed in Rio de Janeiro as consultant in the CAA inter-American program, Mr. Tippett has been assisting the Brazilians in standardizing airways facilities. Uniform flight instruction procedures have been established, with 122 instructors trained in the program, and the CAA manuals have been translated for Brazilian use.

Above is the newly constructed landing strip at Rio das Mortes in the heart of Brazil.

Former Inter-American Students Teach Peruvians U. S. Methods

The aeronautical training received by two Peruvian youths, graduates of the Civil Aeronautics Administration's Inter-American Aviation Training Program, is paying big dividends back home.

The two youths, Ricardo Soberon and Felix Luna, students in this country just over a year ago, have turned teacher and are now passing their knowledge of U. S. methods on to a group of 15 aviation mechanics employed by the Faucett Aviation Company of Lima.

The interest in aviation by the young Peruvians attending the classes given by Soberon and Luna and the continued interest by the two youths themselves is indicated by the fact that the classes are given after regular working hours.

Soberon and Luna were trained in this country under CAA direction at the Spartan School of Aeronautics, Tulsa, Okla., receiving their aircraft and engine licenses in July 1945. Following graduation they were given six months of practical on-the-job training, also under CAA supervision, at the Pacific Airmotive Division, Burbank, Calif.

In addition to their A & E licenses, both attained CAA ground instructor certificates with ratings in aircraft, engines and navigation.

New CAR's Adopted By Board to Prevent Plane Fires in Flight

The Civil Aeronautics Board has adopted additional safety regulations looking toward the prevention of fires in flight in transport aircraft engaged in passenger service. These regulations apply to aircraft presently being designed and to all aircraft currently engaged in passenger service which are powered with one or more engines of 600 hp or over.

The changes in the aircraft will be made after the operators have obtained the necessary design information and parts, and according to a schedule which will accomplish the work as rapidly as possible without disrupting the air transportation system.

These regulations are the result of months of study by the Safety Bureau of the Civil Aeronautics Board, which received helpful advice from the Civil Aeronautics Administration, the aircraft industry, and the air transport operators. Specifically, the new regulations require that the following features be provided in the affected aircraft:

Powerplant Installation—Fire-resistant flexible lines with factory-fixed ends are required for all lines which carry combustible fluids or gases under pressure through or forward of the firewall and which are subject to relative motion between components of the powerplant installation. Firewalls are required to be fireproofed and shall not permit the passage of any hazardous quantity of heat or flame. Shut-off means are required for all lines which carry combustible fluids into the engine so that no hazardous quantity of such combustible fluids will drain into the engine compartments forward of the firewall after emergency shut-off has been accomplished. Approved fire-detection systems and approved built-in fire extinguishers are required for all engine installations. Similar requirements hold for any installations where combustible fluids are ignited, such as combustion heaters, auxiliary powerplants, etc.

Passenger and Crew Compartments—All coverings, linings, carpets, etc., in the passenger or crew compartments are to be of flame-resistant materials. All receptacles for waste material are to be of fire-resistant materials and provided with covers to smother any fire which may originate within. Ample hand fire extinguishers are to be placed at accessible points. Improved ashtrays, from the fire prevention point of view, are required.

Cargo and Baggage Compartments—Unless cargo and baggage compartments are visible to a member of the airplane crew while he is at his duty station, fire-detector systems are to be installed; unless all parts of any cargo or baggage compartments are completely accessible to a member of the crew in flight, built-in fire-extinguishing systems are to be installed in each such compartment along with the fire detector system.

Hydraulic Fluid—Although non-inflammable hydraulic fluids are not yet available in sufficient quantities to require their use in transport aircraft, their availability in the not too distant future is considered reasonably sure. At such time the requirement will be promulgated calling for their use in all transport aircraft, replacing present inflammable fluids.

5-cent Air Mail to Canada, Mexico

Air mail rates to Canada and Mexico were reduced to 5 cents an ounce on October 1. The previous rate to Canada was 8 cents an ounce, and to Mexico, 8 cents a half-ounce. These reductions are being made, the Post Office says, so that our near neighbors to the North and South may share in the new 5-cent domestic air mail rate.

U. S., England Agree to Air Policy Of Free Competition in World Trade

The United States and Great Britain, following a discussion in London in mid-September, have reconciled their divergent air policies and have reached accord which promises to put the international transport agreements of both countries on the Bermuda standard of free competition, according to CAB Chairman James M. Landis, who led the U. S. delegation.

In the Bermuda agreement February 11, the United States and Great Britain granted each other the five freedoms, including the fifth freedom right to pick up traffic bound for another country.

Policies Differ—With other countries, however, Great Britain has been following the policy of limiting passenger capacity, and flight frequencies. The United States, on the other hand, has pursued the freedom of competition policy, allowing the amount of traffic to determine the number of passengers carried, and the number of flights made.

The United States has also applied liberal terms t fifth freedom traffic, while England has tended toward strict limitation. This traffic is vital to a through air carrier, Mr. Landis pointed out. Passengers thin out as the flight progresses, and the right to pick up passengers bound for another country on the route enables the flight to keep the plane filled up.

Divided Traffic—Outstanding example of the British policy is an agreement with Argentina which calls for a 50-50 division of traffic. England has made similar agreements with Greece, France, Holland and Portugal. The British-Greece agreement calls for a 50-50 traffic split on the London-Rome-Athens route, and excludes other carriers from commerce on the route.

In contrast, the United States-Brazilian agreement, made just prior to the discussion, allows unlimited capacity and frequency.

Agreeing that world air trade should operate on a common standard, England and the United States have stated that they will revise any agreement departing from the Bermuda principles at the request of the other country.

Joint Statement—In their joint statement issued September 19, the United States and Great Britain declared "that experience since the Bermuda agreement has demonstrated that the principles enunciated in that agreement are sound and provide, in their view, a reliable basis for the orderly development and expansion of international air transport. They believe that these principles provide the basis for a multilateral international agreement of the type that their representatives at the meeting of the PICAO assembly in May advocated as being in the interests of international air transport.

"Consequently, both parties believe that in negotiating any new bilateral agreements with other countries, they should follow the basic principles agreed upon at Bermuda, including particularly:

1. Fair and equal opportunity to operate air services on international routes and the creation of machinery to obviate unfair competition by unjustifiable increases of frequencies or capacity;

2. The elimination of formulae for the predetermination of frequencies or capacity or of any arbitrary division of air traffic between countries and their national airlines;

3. The adjustment of fifth freedom traffic with regard to: (a) traffic requirements between the country of origin and the countries of destination, (b) the requirements of through airline operation, and (c) the traffic requirements of the area through which the airline passes after taking account of local and regional services.

Best Bilateral Approach—"The representatives of the two countries are united in the belief that until a multilateral agreement is adopted, the Bermuda type of agreement represents the best form of approach to the problem of interim bilateral agreements.

"In furtherance of the foregoing principles each government is prepared upon the request of any other government with which it has already concluded a bilateral air transport agreement that is not deemed to be in accordance with those principles to make such adjustments as may be found to be necessary."

To Exchange Views—Arrangements have been completed for setting up the machinery envisaged in the Bermuda conversations for continuous consultation and exchange of views between the two countries on civil aviation problems. Laurence Vass will be the London representative of the Civil Aeronautics Board, and Nigel Bicknell will be the Washington representative of the Ministry of Civil Aviation.

Brazil, U. S. Agree To Five Freedoms In Bilateral Treaty

Based on the freedom of competition policy, the international air transport agreement reached last month by Brazil and the United States grants the five freedoms to U. S. and Brazilian carriers on routes assigned in either country.

The air transport agreement with Brazil was negotiated and signed September 6, by Civil Aeronautics Board Chairman James M. Landis, who went to Brazil to carry on the negotiations, and Ambassador William D. Pawley.

Sets Agreement Pattern—This agreement, the first to be made with a South American country, sets a pattern which Mr. Landis believes Brazil and most of the other South American countries will use as a base in making air agreements with each other and the United States.

No limitations are imposed on the number of passengers carried, frequency of flights, or fifth freedom traffic which allows the carriers to pick up passengers bound for another country.

Two Interior Routes—Under the agreement U. S. air carriers have been assured two important routes through the interior of Brazil—the cut-off route from Belem to Rio de Janeiro in the east, and the great circle route entering Brazil via Manaos from the west.

The Belem-Rio de Janeiro route which goes through Barreiras is about 700 miles shorter than the east coast route. Pan American, whose flights over the cut-off were previously limited in number, may now schedule as many trips as it wishes.

Shortest Way—The Manaos-Goiania (Goyez) route to Rio de Janeiro or Sao Paulo is the shortest way from Miami, New York and other U. S. cities. This route, however, is not flyable at present for international transport. Until it is ready for use, U. S. carriers may enter Brazil farther south through Campo Grande.

Pan American may also stop at Belem and Natal on its South Atlantic route to Africa.

In return Brazilians have been granted reciprocal commercial stops in New York, Washington, Miami, New Orleans, Chicago and Puerto Rico.

Venezuelan Airline Gets Board Permit For Route to U. S.

Linea Aeropostal Venezolana, an airline wholly owned by the Venezuelan government, has been granted a foreign air permit by the CAB authorizing air service between Maiquetia, Venezuela, and Miami, via Havana, and between Maiquetia and Montreal, Canada, via Havana and New York City.

The applications of Linea Aerea Taca de Venezuela, C.A., and Aerovias Venezolanas, S.A., were deferred, without prejudice to their future consideration, until the conclusion of negotiations now pending for a bilateral agreement between Venezuela and the United States.

In certificating two U. S. airlines for routes to and through Venezuela in the Latin American case, the Board said it naturally took into consideration the prospect that airlines of countries served by our carriers would have an opportunity to operate routes in the United States.

Against Arbitrary Division—The Board further stated: "This does not mean that the United States looks toward arbitrary, predetermined division of traffic with other contracting states. On the contrary, the air policy of the United States has set itself emphatically against any such predetermined formula, it being our belief that arrangements of this character will retard unduly the full development of air transportation. Our policy instead believes in the play of competitive forces, confident that the drive thus stimulated will accelerate the development of air traffic potential of the world to the advantage of all concerned."

In this particular case, the Board said, requirements of reciprocity, as well as the economic data submitted, justify service to the United States by a Venezuelan air carrier.

In recognizing Montreal as a terminal point on one of the routes, The Board said in effect that it will be all right with the United States for Aeropostal to carry local traffic from New York City to Canada, if it is all right with Canada. The United States itself cannot authorize a stop in another country, of course. In the same way Venezuela has authorized U. S. carriers to extend their services from points in that country to points in other South American countries.

Owned by Nationals—In a separate concurring opinion Member Young took occasion to comment upon various inadequacies and uncertainties in the Chicago agreement, which, he stated, should be avoided in future international agreements. He pointed out as particularly noteworthy the provisions of Section 6 of Article I, which provides that substantial ownership and effective control of an international air carrier may be vested in nationals of any signatory to the agreement, irrespective of the state under whose flag it operates. Colonel Young feels that it is important that future international agreements should require that such ownership and control be vested in nationals of the sponsoring country, and states that "If foreign-flag air transport companies substantially owned or controlled by American nationals need only rely upon the broad privileges of a multilateral arrangement of the character of the Chicago Air Transport Agreement in order to acquire foreign air carrier permits from the United States, then the Board faces a serious problem in its attempt to bring about an orderly development of international services to and from the United States."

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750 Nonscheduled Carriers File

A total of 750 nonscheduled carriers had registered with the Civil Aeronautics Board and filed their traffic and financial statements on October 7, as required under the new nonscheduled ruling.

Fire Causes Airline Crash—Fire in flight originating in the rear cargo compartment or lavatory is given by the Board as the probable cause of the crash of Eastern Air Lines Flight 42 near Florence, S. C., Sept. 6, 1945. All 19 passengers and the three crew members were killed.

As a result of its investigation of this accident and review of the other fire in flight records, the Board has revised the Civil Air Regulations to include additional installation of fire-prevention equipment on air carrier aircraft. The new safety requirements are given on page 128 in this issue.

Although the Board could not find out how the fire started, numerous pieces of burned soundproofing, partially burned letters, and a small piece of material from personal luggage found scattered over a mile-long stretch before impact furnish evidence that the plane was afire prior to the crash. Presumably, fire was discovered on board the aircraft after it had passed Florence, and the flight was attempting to return to the Florence Army Airfield for an emergency landing.

Evidence indicates that the greatest concentration of fire existed near the partition adjoining the baggage compartment and lavatory, and that it spread forward into the buffet section and coat rack as well as rearward into the tail cone after having reached fairly intense proportions. The right elevator caught fire immediately before the final crash.

Other evidence revealed that all the passengers, flight attendant and first officer were crowded into the companionway between the cabin and the pilot's compartment, and that two hand fire extinguishers of a carbon dioxide type had been used in flight without success.

On the basis of investigation of this accident and the available records of fire in flight the Board concludes that:

1. All DC-3 passenger equipment is not provided with adequate access to the baggage compartment from the cabin.
2. Maximum safety in flight requires the installation of fire detecting equipment in the cargo compartments.
3. The use of paper lunch and lavatory accessories in flight constitutes a fire hazard.
4. Further emphasis must be placed in aircraft design on the use of non-combustible materials in cabin lining, sound-proofing, and waste containers.
5. Carbon dioxide fire extinguishers are not adequate for all types of fire.

In analyzing the fire hazards in the aircraft, the Board attributed much of the intensity of the fire to the considerable amount of inflammable materials aboard, such as baggage, mail, buffet and lavatory equipment. Although cabin interiors are lined with treated fabric which will not burn as readily as doped fabric, it is nevertheless inflammable, the Board pointed out. Soundproofing also will burn. Paper alone could have been responsible for the burning of the metal in the rear of the fuselage during the flight, the Board said. During tests conducted by a government agency after the accident, a fire of wrapping paper attained a temperature of over 1100° F. The aluminum alloy used for skin and structural members of the DC-3 has a melting point under 1200°.

Pointing out the importance of detecting a fire in aircraft immediately upon ignition, or even before a blaze is started, the Board said smoke detectors are available which provide an extremely effective device for the detection of smouldering fires before they become of intense proportion. However, since little testing has been accomplished with smoke detectors in flight, the applicability of present designs to the DC-3 has not been known until recently and they are, therefore, not in general use in DC-3 aircraft.

Even if fire had been detected in the baggage compartment, the small opening would have made it difficult to extinguish the blaze. It is apparent, the Board said, that a large enough opening should be provided into the baggage compartment to permit the entry of a crew member when necessary.

Serious questions, the Board said, have arisen concerning the effectiveness of carbon dioxide as compared with other available agents. Tests conducted by the Civil Aeronautics Administration have demonstrated that the fire extinguishing qualities of methyl bromide are superior to that of carbon dioxide particularly in gasoline and oil fires. Smouldering fires in such items as luggage and pillows are more effectively subdued by carbon tetrachloride.

Too Abrupt on Controls—An aircraft accident near Queen City, Mo., April 28 resulted in minor injuries to Pilot Kenneth W. Alexander, of Queen City, and his passenger, Doris Thurman, of Kirksville, Mo. Alexander held a commercial certificate issued on military proficiency and most of his 560 hours flying experience had been on heavier military equipment. He had flown approximately 11 hours in the type of aircraft involved, 10 of which were in 1943. This was his first flight in approximately eight months.

After a check ride Pilot Alexander took off from Kirksville Airport with Miss Thurman for a local pleasure flight. He flew to Queen City, about 15 miles distant, and while circling his home turned to talk to his passenger in the rear seat. Upon then noting that the plane was in a nose-high attitude and that the airspeed had dropped, he quickly thrust the control stick well forward, applied full throttle, and almost equally as fast pulled the stick rearward. This violent application of controls caused the pilot and passenger to bump their heads together, making both unconscious. The airplane flew itself into the ground with full power on. Miss Thurman regained consciousness shortly after the impact; the pilot about an hour later.

Reckless Flying Condemned In Board Safety Bulletin

Reckless flying by show-off pilots has been condemned by the Civil Aeronautics Board from the standpoint of damage to lives and property, and for the retarding effect on the development of aviation generally.

In a bulletin prepared by the Safety Bureau of the Board and titled "Air Recklessness", the cost of reckless flying in terms of planes lost and damaged, was estimated to exceed $250,000 for the past 12-month period. The Bulletin stated that hospital bills, funerals, broken careers and life incapacitations, not to be measured in terms of dollars, must be taken into consideration also.

"An act of premeditated diving or zooming whereby persons and property are endangered may be likened to manslaughter and certainly to an attempt at suicide," the bulletin stated. "Those who indulge in it are asking for—and will get—a finely fitted aeronautical dunce-cap, and so adorned with the stigma of their stupidity, are apt to wind up, not in the corner, but in jail, hospital, or morgue."

Copies of this Safety Bulletin, 170-46, "Air Recklessness", may be obtained at Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., for 5 cents each.

Training Program Inadequate—Failure of the company to maintain an adequate training program and training facilities for pilot personnel figured in two National Airlines accidents in 1945, one at Lakeland, Fla., Oct. 5, and the second at Banana River, Fla., Oct. 11. Both pilots failed to execute a missed approach procedure properly.

In the Lakeland accident the pilot unexpectedly ran into a small cloud during landing approach and decided to go around again. His technique was faulty in attempting a go-around, and the plane settled into a lake adjoining the field.

In the Banana River accident, the pilot was attempting a single-engine emergency landing to avert a possible oil fire in the right engine. Repairs had been made to oil hoses earlier in the flight at Jacksonville. However, faulty installation of a right engine push rod housing upper hose and seal clamp resulted in separation from the push rod housing and leakage of oil in flight.

Evidence revealed that (1) while the aircraft was a short distance from the Banana River Naval Air Station, the tower personnel changed the direction of landing 90° without previous notification to the flight. (2) An approach to the field was established too close for a safe landing. (3) Excessive flaps were used for an emergency single-engine approach. (4) A missed approach procedure was initiated in which 30% flap remained extended during the attempted go-around. (5) Maximum available horsepower was not used. (6) The aircraft was not able to maintain altitude during the pull-out and struck the ground approximately a half-mile beyond the field.

In both of these accidents, as well as a previous one, the Board found that the pilot personnel was not sufficiently acquainted with the characteristics of the plane involved, particularly with respect to marginal operation. The effect of flaps on flight characteristics was not fully known by all National pilots, and some specific details were completely lacking in standardization. This the Board attributed to an inadequate training program.

The company has reported that it has taken action in remedying the situation, and is making available sufficient aircraft for a more vigorous training program.

Stalled on Steep Turn—Spinning in from a low altitude at Charleston, S. C., on April 28, was fatal to Private Pilot James J. Randall and his passenger, Joseph E. Tidwell. The plane was demolished.

Reports submitted indicate that Pilot Randall, with his passenger, was on a local pleasure flight. During a landing approach to Clark Field and at an altitude of about 300 feet he made a steep turn from the base leg to his final approach leg and stalled the plane. It spun to the left and crashed before recovery was effected.

Mice Cause Accident—The weakening of the rib stitching in the left wing fabric, apparently caused by the gnawing of mice that had nested in the wing, accounts for two deaths in an aircraft accident at Grafton, Ohio, April 10. The weakened rib stitching gave way in flight.

Student Pilot Wayne Meyers, and a passenger, Joseph Burke, both of Grafton, took off from Meyers Field for a local flight. The plane was observed making steep climbing and diving turns at from 1400 to 1600 feet. It then leveled off and headed back toward the field. Shortly thereafter witnesses heard a loud popping sound and almost immediately the plane fell off to the left and dived into the ground out of control. Both pilot and passenger were killed.

Essential Steps for Federal Airport Aid

(Continued from page 125)

submitted to Congress in November 1944. We intend to name in the plan the location and class of facility that we believe will be needed during the next three years, and then, as required by law, revise the plan each year. Our goal for announcement of the plan is December 1.

"Then, on the basis of your project request, and the recommendation which the district engineer submits concerning it, the CAA will decide whether it can appropriately include your project in the current program. If it is selected, you will be notified through the district engineer that a tentative allocation of funds has been made.

Sponsor's Agreement, Application—"The next stage calls for submission, again through the district engineer, of two items—the sponsor's assurance agreement, and the project application. The first is a legal document, which, to sum it up very briefly, commits the sponsor to operate and maintain the airport for public use. The project application must be accompanied by final plans and specifications, and, if land acquisition is involved, by a survey map.

Grant Agreement—"If the material submitted is satisfactory, the CAA will make a formal 'grant offer.' The sponsor then has 60 days to accept the offer, and return it to the district engineer as a completed 'grant agreement.'

"Once this grant agreement has been executed, the sponsor can go ahead in the usual way to advertise for bids, let contracts and supervise construction, obtaining the federal share of the cost in installments as the work progresses. There is one requirement prescribed by Congress which affects the contracting procedure, however—minimum wage rates for labor must be determined by the Secretary of Labor. To comply with this provision, the sponsor must furnish the district engineer with the proposed wage schedule not less than 60 days before it advertises for bids."

In regard to the larger airports, Class 4 and above, Mr. Wright pointed out that the law establishing the airport program says that the CAA *will* pay 50 percent of the cost of smaller projects, and *may* pay up to 50 percent of the cost of larger fields.

Large Airport Formula—Faced with the responsibility of working out a more exact formula for the fair allocation of funds for these larger airports, Mr. Wright said that the CAA has arrived at a sliding scale which he believes, available funds considered, will make appropriate provision for the new or improved terminals needed in many cities, while retaining the proper emphasis on a widespread distribution of small fields.

"Our proposal on Class 4 or larger projects," he said, "is that the federal share of costs up to $2,000,000 should be 50 percent, the same as on smaller projects, but that on each additional million dollars up to 10 million, the federal share shall be reduced 5 percent. For example, on a $3,000,000 project the federal share would be $1,450,000, while on an $11,000,000 job, the CAA would pay $3,250,000. These figures would be adjusted upwards, of course, in the 'public lands' states of the West.

"This is the picture on the administrative side, and as you can see, we need and invite your cooperation in establishing and effectively applying these procedures. But in perfecting these details, we must not lose sight of the larger picture. All of us in aviation must remember that this is a long-range program, designed to develop over a seven-year period the fundamentals of an airport system which will enable civil aviation to become a truly important segment of our economic life.

Must Appropriate Funds—"Congress has authorized $520,000,000, but it actually has appropriated less than $48,000,000. And considerably less may be available for expenditure this year, in line with the over-all program of delaying public works to check inflation. An additional appropriation must be approved each year by the Budget Bureau, the House, the Senate and the President.

"The amount of funds, if any, that will be made available during the years to come depends on the will of Congress, guided by the over-all progress of aviation," Mr. Wright concluded. "In 1904, we had only one automobile to every three miles of hard roads. During the next 30 years, the ratio grew to about 25 automobiles per mile (a 75-fold increase) and the Congress willingly and wisely appropriated federal funds to speed this development for the benefit of the whole nation."

July Airport Total Shows Steady Growth

Total civil and military airports in operation on July 1 in the United States numbered 4,306, representing an average increase of slightly more than 50 a month in the preceding 12-month period. During the year the number of airports controlled by the military services declined 14%, from 961 to 831. Although it may be reasonable to assume that a large number of the airports abandoned by the military are now operated as municipal or commercial airports, the total increase in these types of airports was far greater than the number given up by the Army and Navy. During this period, commercial and municipal airports advanced 33%, from a combined total of 2,325 on July 1, 1945, to 3,099 on July 1, 1946, indicating that the bulk of the expansion was the result of construction of new commercial and municipally-operated airports.

The interest shown by communities and municipalities in private flying is brought out clearly by the rapid construction of airfields that will be used primarily by pilots of light planes. During the 12 months ending July 1, 1946, 476 airports, or 78% of the total added, were in Classes I and II. Class I airports will take care of the private owner flying a small type aircraft. Privately-owned larger type aircraft and also feeder transport aircraft can land on Class II airports. Of the 476 Class I and II airports added during fiscal 1946, 294 were Class I.

United States Airports by Type of Operation, Size, and State

July 1, 1946

State	Total	Type of Operation					Size Classification				
		Commercial	Municipal	CAA Intermediate	Military[1]	All Others[2]	Sub I[3]	I	II	III	IV & Over
Total	4,306	1,760	1,339	209	831	167	496	1,301	1,178	488	843
Alabama	72	18	13	2	24	5	4	18	17	13	20
Arizona	101	30	26	10	21	14	5	21	37	12	26
Arkansas	66	34	15	1	12	4	12	15	16	7	16
California	328	125	69	12	98	24	30	87	84	30	97
Colorado	74	31	29	2	9	3	8	19	31	5	11
Connecticut	24	14	7	1	2	0	1	14	0	4	5
Delaware	11	7	1	0	3	0	1	3	4	0	3
District of Columbia	3	0	0	0	2	1	0	0	0	1	2
Florida	203	26	42	4	127	4	2	32	39	57	73
Georgia	102	29	23	9	37	4	10	20	21	16	35
Idaho	67	13	36	5	3	10	11	26	17	6	7
Illinois	126	72	19	5	21	9	13	40	53	11	9
Indiana	98	48	19	2	28	1	11	25	41	8	13
Iowa	97	59	31	4	2	1	17	39	32	3	6
Kansas	140	50	53	3	31	3	19	57	28	12	24
Kentucky	24	10	8	2	4	0	1	6	8	4	5
Louisiana	56	17	17	4	17	1	6	14	15	4	17
Maine	47	21	20	0	6	0	8	14	6	10	9
Maryland	37	23	4	1	8	1	4	11	9	5	8
Massachusetts	60	37	12	1	10	0	17	14	11	8	10
Michigan	168	52	96	1	13	6	12	73	54	14	15
Minnesota	75	33	38	2	1	1	8	37	20	4	6
Mississippi	61	17	23	6	14	1	3	13	16	15	14
Missouri	96	45	25	8	15	3	11	32	28	13	12
Montana	97	14	54	13	1	15	14	31	31	9	12
Nebraska	67	23	26	5	13	0	8	21	18	2	18
Nevada	45	13	9	9	12	2	4	11	6	6	18
New Hampshire	22	10	11	0	1	0	5	6	4	4	3
New Jersey	58	41	8	0	8	1	5	24	19	4	6
New Mexico	80	22	26	10	13	9	7	18	23	7	25
New York	181	118	40	4	13	6	44	71	27	20	19
North Carolina	111	61	23	1	25	1	28	32	15	15	21
North Dakota	47	11	30	6	0	0	3	17	18	3	6
Ohio	147	101	32	6	6	2	23	46	57	13	8
Oklahoma	148	60	48	3	36	1	19	56	37	12	24
Oregon	74	26	33	5	9	1	9	17	17	12	19
Pennsylvania	155	106	37	3	7	2	25	72	36	13	9
Rhode Island	8	4	1	0	3	0	3	1	0	2	2
South Carolina	61	15	22	2	20	2	6	17	11	6	21
South Dakota	35	10	19	1	5	0	1	13	11	2	8
Tennessee	38	12	14	7	4	1	2	4	15	6	11
Texas	406	163	117	23	90	13	36	97	128	48	97
Utah	41	5	23	8	3	2	1	12	10	7	11
Vermont	12	3	9	0	0	0	1	6	1	4	0
Virginia	81	38	19	4	19	1	8	31	19	8	15
Washington	106	34	41	3	21	7	15	28	22	8	33
West Virginia	32	18	11	2	1	0	7	7	12	3	3
Wisconsin	78	37	37	2	2	0	8	25	34	8	3
Wyoming	40	4	23	7	1	5	0	8	20	4	8

[1] Includes Army, Navy, Army operated and Navy operated airports (the last two are commercial and municipal airports taken over by the Army or Navy during the wartime emergency).
[2] Includes private and miscellaneous government airports.
[3] Indicates airports which exist but do not come up to Class I standards.

Cole Resumes Former Post As States' Relations Head

Elwood B. Cole, a Navy veteran of two wars, has resumed his assignment as Assistant to the Administrator for State Relations, the Civil Aeronautics Administration announces.

Mr. Cole, who attained the U. S. Naval Reserve rank of captain during World War II, was commissioned a lieutenant-commander in 1938. He left his work as CAA State Coordinator for active duty in February, 1941.

Airline Orders

Service

No. 5094 modifies paragraph 11 of order No. 5035 with respect to the time provided on which exemption order No. 3895, held by Alaska Airlines, should be vacated. (Aug. 16)

No. 5095 consolidates amended application of National Airlines, in Docket 2351, proposing service between Washington, D. C. and Detroit, Mich., via Pittsburgh, Pa., and Cleveland, Ohio, into the proceeding under Docket 679 et al, covered by order No. 5002. (Aug. 20)

No. 5097 permits the City of Rome and the County of Floyd, Ga., to intervene in the Southeastern States Case—Docket 501 et al. (Aug. 20)

No. 5098 permits Eastern Air Lines to inaugurate on Aug. 19, nonstop service between Charlotte, N. C. and Charleston, S. C., on route 6. (Aug. 20)

No. 5099 denies petition of Western Air Lines for leave to intervene in the application of Roy H. Curtiss, Docket 2152, for a certificate. (Aug. 21)

Nos. 5100 and 5101, respectively, deny petitions of Western Air Lines for leave to intervene in the applications of Wien Alaska Air Lines, Dockets 2198 and 2199, for certificates. (Aug. 21)

No. 5102 dismisses proceeding against Braniff, Chicago & Southern, Delta, National and Pennsylvania-Central Airlines concerning the rates, fares and charges for transportation of passengers. (Aug. 21)

No. 5103 reissues temporary certificate to Monarch Air Lines, Inc., formerly Ray Wilson, Inc. (Aug. 21)

No. 5104 denies petition of Cornell University for leave to intervene in the Middle Atlantic Area Case—Docket 674 et al. (Aug. 22)

No. 5105 permits the Chamber of Commerce of Birmingham, Ala. to intervene in the Latin American Service Case—Docket 525 et al. (Aug. 22)

No. 5107 dismisses applications of Norseman Air Transport, Inc. (Aug. 23)

No. 5108 grants petition of the City of Albuquerque, N. Mex., for leave to intervene in the Arizona-New Mexico Case—Docket 968 et al. (Aug. 23)

No. 5109 dismisses application of Colorado Airways for a certificate. (Aug. 23)

No. 5111 grants petition of the Memphis Chamber of Commerce, Memphis, Tenn., for leave to intervene in the application of Braniff Airways, Inc., et al, for amendment of certificates—Docket 1154 et al. (Aug. 23)

No. 5112 grants petition of the City of Meridian, Miss., for leave to intervene in the Southeastern States Case—Docket 501 et al. (Aug. 23)

No. 5113 permits American Airlines to intervene in an agreement between Railway Express Agency and Northwest Airlines relating to the operations of an air freight business—Docket 2340. (Aug. 26)

No. 5116 grants petition of the Chamber of Commerce of Moultrie, Ga., for leave to intervene in the Southeastern States Case. (Aug. 26)

No. 5122 grants petition of the City of Paducah, Ky., and the County of McCracken, Ky., for leave to intervene in the Southeastern States Case. (Aug. 28)

No. 5124 permits Northwest Airlines to serve Seattle, Wash., on its international route, on Sept. 1, 1946, through the use of Boeing Fld. (Aug. 29)

No. 5125 grants petition of the City of Detroit and the Detroit Board of Commerce, Detroit, Mich., for leave to intervene in the Detroit-Washington Service proceeding—Docket 679 et al. (Aug. 29)

No. 5126 dismisses application of Chicago and Southern Air Lines, Docket 2394, for a certificate. (Aug. 29)

No. 5127 grants petitions of the Post Office Dept., Transcontinental & Western Air, Western and United Airlines for leave to intervene in the Los Angeles Helicopter Case proceeding; denies petition of All American Aviation for leave to intervene in the same proceeding. (Aug. 29)

No. 5128 consolidates applications of Southwest Airways Co., Docket 896, and of Los Angeles Airways, Docket 1821, in one proceeding—the Los Angeles Helicopter Case—Docket 896 et al. (Aug. 29)

No. 5129 consolidates into the proceeding under Docket 679 et al, the application of Colonial Airlines, Docket 2460, proposing service between Washington, D. C., and Detroit, Mich., via Pittsburgh, Pa., Youngstown, Akron and Cleveland, Ohio. (Aug. 29)

No. 5130 grants petition of the City of Memphis, Tenn., for leave to intervene in the application of Braniff Airways, Inc., et al (Docket 1154 et al) for amendment of certificates. (Aug. 29)

No. 5131 permits Northwest Airlines to serve Anchorage, Alaska, on its international route on Sept. 1, 1946, through the use of Elmendorf Fld.—providing the War Dept. approves the use of the airport. (Aug. 29)

No. 5132 permits Delta Air Lines to serve Lexington, Ky., on Route 54, on Sept. 1, through the use of Blue Grass Fld. (Aug. 29)

No. 5133 grants petition of the City of San Angelo, Tex., for leave to intervene in the application of Pioneer Air Lines for amendment of a temporary certificate—Docket 2057. (Aug. 30)

No. 5134 grants petitions of the Cities of Hot Springs, Las Cruces and Lordsburg, N. Mex., the Grant County Chamber of Commerce of Silver City, N. Mex., the Hot Springs Chamber of Commerce, Hot Springs, N. Mex., and the Mesilla Valley Chamber of Commerce of Las Cruces, N. Mex., to intervene in the Arizona-New Mexico Case—Docket 968 et al; denies petition of the Hatch Valley Chamber of Commerce, Hatch, N. Mex., for leave to intervene in the same proceeding. (Aug. 30)

No. 5135 permits Eastern Air Lines to inaugurate on Sept. 3, nonstop services between Richmond, Va., and New York, N. Y., on routes 5 and 6. (Aug. 30)

No. 5137 directs Colonial Airlines to show cause why the use of Ballston Spa Airport for serving Glens Falls, N. Y., should not be disapproved. (Aug. 30)

No. 5138 denies petitions of Matson Navigation Co. and Western Air Lines for rehearing, reargument and reconsideration of the Hawaiian Case, Docket 851 et al, except insofar as reargument and reconsideration have already been granted by Board order No. 4936. (Aug. 22)

No. 5139 permits United Air Lines to inaugurate on Sept. 1, nonstop service between Detroit, Mich., and South Bend, Ind., on route 1. (Aug. 30)

No. 5141 permits Eastern Air Lines to serve Providence, R. I., on routes 5 and 6, on Sept. 3, through the use of Theodore Francis Green Airport. (Aug. 30)

No. 5142 permits Eastern Air Lines to inaugurate on Sept. 3, nonstop service between Newark, N.J., and Jacksonville, Fla., on route 6. (Aug. 30)

No. 5143 permits Eastern Air Lines to inaugurate on Sept. 3, nonstop service between New York, N. Y., and Jacksonville, Fla., on route 6. (Aug. 30)

No. 5144 permits Eastern Air Lines to inaugurate on Sept. 3, nonstop service between Washington, D. C., and New Orleans, La., on route 5. (Aug. 30)

No. 5145 dismisses, for want of prosecution, application of Big Horn Airways, Docket 1001. (Sept. 3)

No. 5146 permits Northeast Airlines to inaugurate service at Providence, R. I., on route 27, on Sept. 10, through the use of the Theodore Francis Green (Hillsgrove) Airport. (Sept. 3)

No. 5147 permits the Los Angeles Chamber of Commerce, Los Angeles, Calif., to intervene in the Hawaiian Case. (Sept. 3)

No. 5148 permits the City of Charlotte, N. C., to intervene in the Latin American Service Case—Docket 525 et al. (Sept. 3)

No. 5149 amends Board order No. 941, which relieved Railway Express Agency temporarily from certain requirements of the Civil Aeronautics Act, so as to enable them to conduct air express operations with certain air carriers operating under certificates issued by the Board. Order No. 5149 provides approval for any other identical contracts entered into by Railway Express. (Sept. 3)

No. 5150 orders that the West Coast proceeding, Docket 250 et al, be reopened solely upon the existing record for further argument and reconsideration of that portion of the Board's opinion and order, No. 4790, which denied Western Air Lines' application in Docket 941 requesting authority to engage in transportation between San Francisco, Calif., and Seattle, Wash., either directly or via intermediate points; denies all other petitions and requests for hearing, reargument and reconsideration. (Sept. 3)

No. 5151 permits the City of Oakland, Calif., to intervene in the West Coast Case—Docket 250 et al. (Sept. 3)

No. 5152 orders that the temporary certificate issued to Southwest Airways Co., permitting Southwest to engage in transportation of persons, property, and mail over route 76, be reissued so as to designate Oakland and San Francisco, Calif., as co-terminal points on each of the route segments. (Sept. 3)

No. 5153 grants petition of the City of Tulsa, Okla., for leave to intervene in the application of Braniff Airways, Inc., et al. (Sept. 4)

No. 5154 permits Eastern Air Lines to serve San Juan, Puerto Rico, on Sept. 9, through the use of Isla Grande Naval Air Station. (Sept. 4)

No. 5155 denies motion, and request for oral argument in support of motion, of Chicago and Southern Air Lines to dismiss the application of Waterman Steamship Corp. and Waterman Airlines, Inc., for a temporary certificate and for approval of certain relationships, Docket 2405. (Aug. 30)

No. 5156 denies petition of Pacific Overseas for leave to intervene in the Hawaiian Case, for consolidation of Docket 2448 with the Hawaiian Case, for the reopening of the record in the Case for receiving certain additional evidence, and for leave to file such petition to reopen the record. (Aug. 30)

No. 5161 grants Braniff Airways, National, Chicago and Southern, Eastern and Colonial Airlines and the Dept. of Justice leave to intervene in the application of Pan American Airways for approval of an agreement between Pan American and Pan American-Grace, providing for operation of planes of the latter company between Balboa, C. Z., and Miami, Fla., etc.—Docket 2423. (Sept. 5)

No. 5162 permits Chicago and Southern Air Lines to intervene in the Detroit-Washington Service proceeding. (Sept. 5)

No. 5163 further modifies paragraph 11 of Board order No. 5035 with respect to the time provided within which the exemption order held by Alaska Airlines should be vacated. (Sept. 6)

No. 5164 grants petition of National Airlines for leave to intervene in the application of Royal Dutch Air Lines (KLM) for a foreign air carrier permit—Docket 2324. (Sept. 10)

No. 5165 grants Linea Aeropostal Venezolana a foreign air carrier permit authorizing air transportation service between the terminal point Maiquetia, Venezuela, the intermediate point Havana, Cuba, and the terminal point Miami, Fla., and between the terminal point Maiquetia, the intermediate points Havana, and New York, N. Y. and the terminal point Montreal, Canada. (Issued with an opinion—Aug. 15)

No. 5167 denies motion of Trans-Pacific Airlines for immediate hearing on its application—Docket 2390. (Sept. 10)

No. 5168 denies motion of Island Air Ferries to reconsider the Board order which granted the petition of Empire Airlines for leave to intervene in the Middle Atlantic Area Case—Docket 674 et al. (Sept. 10)

No. 5169 permits Trans-Canada Air Lines to serve Duluth, Minn., on Sept. 16, through the use of the Williamson-Johnson Municipal Airport. (Sept. 10)

No. 5170 grants petition of the Chamber of Commerce of Pittsburgh, Pa., for permision to intervene in the Detroit-Washington Service proceeding. (Sept. 10)

No. 5171 grants petition of the Air Transport Assn. of America for leave to intervene in the petition of American President Lines, Ltd., et al., to investigate and study the effect of competitive conditions that have arisen through the implementation of recent international air agreements, and to review and revise its policy with respect to the participation of American steamship companies in foreign and overseas air transportation. (Sept. 11)

Miscellaneous

No. 5106 approves an agreement between Continental Air Lines and Monarch Air Lines relating to overhaul and conversion work on a Douglas C-47 A aircraft. (Aug. 22)

No. 5136 dismisses complaint of Pacific Northern Airlines with respect to the ownership and control of Alaska Airlines. (Aug. 30)

No. 5157 approves an agreement between United and Eastern Air Lines relating to the use by Eastern of United's sanitary receptacle cleaner unit. (Sept. 4)

No. 5159 approves an agreement between American and Trans-Canada Air Lines relating to the furnishing of electric power to Trans-Canada for use on LaGuardia Fld. (Sept. 5)

No. 5160 denies motion of Eastern Air Lines to dismiss the petition of Pan American Airways, Docket 2423. (Aug. 30)

No. 5166 approves joint application of Paul F. Collins and Northeast Airlines for approval of interlocking relationships now or hereafter existing as a result of the holding by Paul F. Collins of the positions as President and Director of Northeast and Director of the Metropolitan Aviation Corp. (Sept. 10)

Airman Orders

Suspensions

No. 5096 suspends commercial certificate of Kenneth B. Smith for 6 months because he operated an aircraft in a careless and reckless manner so as to endanger the lives and safety of others, contrary to the provisions of sec. 60.101 of the Regulations; Smith also violated the provisions of sections 60.105(a) and 43.409 of the Regulations. (Aug. 19)

No. 5110 suspends commercial certificate of Ruben Arnold for 30 days because he permitted his pilot certificate and airman rating record to be altered. (Aug. 23)

No. 5114 suspends airman rating of William J. Grant, Jr. for 60 days because he carried a passenger while he was piloting an aircraft of a class for which he was not rated, in violation of section 43.63 of the Regulations. (Aug. 26)

No. 5115 suspends airline transport certificate of August S. Keim, Jr. for two weeks because he piloted a civil aircraft out of LaGuardia Fld., New York, N. Y., as pilot in command of the craft and failed to test the flight controls to the full limit of travel immediately prior to the takeoff run, contrary to the provisions of sec. 61.7202 of the Regulations. (Aug. 26)

No. 5117 suspends student certificate of John C. Gurley for 6 months because he piloted a civil craft over the southeast corner of the Army Air Base, Boca Raton, Fla., a congested area, at an altitude of approximately 100 ft., contrary to the provisions of sec. 60.105(a) of the Regulations. (Aug. 26)

No. 5118 suspends student certificate of Richard E. Lane for 6 months because he piloted a civil craft over the southeast corner of the Army Air Base, Boca Raton, Fla., a congested area, at an altitude of approximately 100 feet, contrary to the provisions of sec. 60.105(a) of the Regulations. (Aug. 26)

No. 5140 suspends private certificate of Aaron Lefkowitz for 45 days because he piloted an aircraft when it was unairworthy in that the oil pressure was too low to properly lubricate the engine, contrary to sec. 43.20 of the Regulations. (Aug. 30)

No. 5158 suspends commercial certificate of Roy C. Immel for 90 days because he piloted an aircraft over a congested settlement near San Antonio, Tex., and executed aerobatics, including dives, pull-ups, and steep climbing turns over Dreamland Drive and over his parents' residence, reaching an altitude of between 200 and 250 ft. at the bottom of the dives, contrary to the provisions of sec. 60.105(a) of the Regulations. Immel also violated other provisions of the Regulations. (Sept. 4)

No. 5172 suspends airman certificate of Russell W. Woodrum for 6 months. Woodrum, while the holder of a student certificate, piloted an aircraft carrying a passenger, contrary to the provisions of sec. 43.50 of the Regulations. (Sept. 11)

No. 5173 suspends airman certificate of Robert H. DeKay for 90 days because he carried a passenger while the holder of a student certificate. DeKay, as of Aug. 29, 1945, the date of the violation, had logged 155 solo flight hours and since that time has been issued a private certificate. (Sept. 11)

No. 5174 suspends airman certificate of Leo Mansdorf for 6 months. Mansdorf, while the holder of a student certificate, piloted an aircraft carrying a passenger, contrary to the provisions of sec. 43.50 of the Regulations. (Sept. 11)

No. 5175 suspends student certificate of Aaron W. Johnson for 30 days because he operated an aircraft in the furtherance of the business of the operator, contrary to the provisions of sec. 43.50 of the Regulations. (Sept. 13)

No. 5176 suspends private certificate of June C. Diestler for an additional 2 months because she flew an aircraft over the congested area of Waverly, Iowa, at an altitude below 1,000 feet contrary to the provisions of sec. 60.105(a) of the Regulations. Miss Diestler had already been deprived of the use and privileges of her certificate for 60 days. (Sept. 13)

No. 5177 suspends commercial certificate of Mario N. Menna for 30 days because, while operating a civil aircraft in the vicinity of Westchester Airport, Armonk, N. Y., he landed on top of another aircraft, thus failing to observe other traffic and take precaution to avoid a collision, contrary to the provisions of sec. 60.106 of the Regulations. (Sept. 13)

No. 5178 suspends airman certificate with commercial rating of Edward J. Jennings until Feb. 10, 1947, because, while carrying a passenger he flew as low as 100 feet over the congested residential area of Dorseyville, Pa., contrary to the provisions of sec. 60.105(a) of the Regulations. (Sept. 13)

No. 5179 suspends student certificate of Richard Calloway, Jr. for 3 months because he flew at less than 500 feet over the Cedar Lawn Airport, Kenton, Ohio, involving a hazard to persons and property on the surface, contrary to the provisions of sec. 60.105(a) of the Regulations. (Sept. 13)

Revocations

No. 5015 revokes commercial certificate with single engine land ratings of William Lane Donovan, Jr., because he operated an aircraft in a careless and reckless manner so as to endanger the lives and property of others, contrary to the provisions of sec. 60.101 of the Regulations. Donovan also violated sec. 60.104, 60.105 and 60.106 of the Regulations. (July 24)

No. 5038 revokes Robert Julian Bell's private certificate. Bell, while carrying a passenger, flew at an altitude of from 50 to 75 ft. and executed a shallow dive of from 50 to 75 ft. over an intersection of 2 highways, performed 2 steep pull-ups, and thereafter crashed. Both he and his passenger were injured. The foregoing maneuvers were contrary to the provisions of sec. 60.101, and 60.105(b) of the Regulations. (Aug. 5)

No. 5039 revokes student certificate of Donald Eugene Herbert, because while the holder of such certificate, he carried two passengers thereby violating sec. 43.50 of the Regulations. Herbert also operated aircraft otherwise than in accordance with limitations for safe operations contrary to provisions of sec. 01.12 of the Regulations. (Aug. 5)

No. 5040 revokes student certificate of John Warren Tapp, because while holder of such certificate he carried two pas-

sengers thereby violating sec. 43.50 of the Regulations. The order provides that carelessness and disregard for lives and safety of others and disregard for the Regulations occasioned this decision. (Aug. 5)

No. 5041 revokes student certificate of Duane Harold Hostetler, because he carried a passenger while the holder of a student certificate in violation of sec. 43.50 of the Regulations. Hostetler's carelessness and disregard for the lives and safety of others and disregard for the Regulations warranted this decision. (Aug. 5)

No. 5053 revokes student certificate of Raymond Fred Wachter. He flew solo when not found capable by flight instructor for such flight and piloted aircraft outside the local flying area designated by flight instructor, violating sec. 43.51 and 43.52 of the Regulations. Wachter operated aircraft in careless and reckless manner preventing another aircraft from landing, failed to take action on traffic signals, failed to observe the traffic and conform to same and did not maintain contact with control tower, thereby violating sec. 60.101 and 60.106 of the Regulations. (Aug. 8)

No. 5066 revokes commercial certificate of Joel Taylor Murphy, because he operated aircraft in careless and reckless manner, executed steep dives, performed acrobatic maneuvers at low altitude over school buildings resulting in death to one of the students. He violated sec. 60.105(a), 60.104(b), 43.409 and 60.101 of the Regulations. The order further provides Murphy shall not be issued an airman certificate prior to three years from date of this order.

No. 5120 revokes commercial certificate of Frederick W. Finley because, while carrying a passenger, he flew over the town of Somers, Conn., at about 10 feet above the rooftops, contrary to the provisions of sec. 60.105(a) of the Regulations. Finley also violated other provisions of the Regulations. (Aug. 26)

Miscellaneous

No. 5009 grants waiver to Ray T. Elsmore exempting him from CAR 21.15 requiring written examination for issuance of airline transport pilot certificate; denies his request for the waiver from CAR 21.17 requiring a flight test. Elsmore held an airline transport certificate in 1940 which expired when he was on active duty with the Army Air Forces overseas. He logged over 2000 hours as a rated command pilot in the AAF. (July 24)

No. 5010 dismisses complaint against Student Pilot Robert J. Steele, charged with low flying without sufficient fuel and landing on highway. Board held that alleged acts were not supported by evidence. (July 24)

No. 5013 denies petition of Martin Propst, 15, to waive age requirement of 16 years (20.01) for issuance of student pilot certificate. (July 24)

No. 5016 denies petition of Newton H. Reid to reconsider and modify revocation of his flight instructor rating. (July 24)

No. 5027 modifies revocation order to permit Fred Eugene Webber to hold pilot certificate after July 29, 1946. Previous order denied him right to hold certificate for a year, from Jan. 12, 1946 to Jan. 12, 1947. Weber said that he has not piloted aircraft since July 29, 1945. (July 29)

No. 5078 denies petition of Harry Allen Grant, commercial pilot, for rehearing of the Board's order revoking his certificate for two years from May 14, 1946. (Aug. 15)

No. 5119 dismisses Administrator's complaint which alleged that Edward C. Kenneweg violated certain provisions of the Civil Air Regulations. (Aug. 26)

No. 5121 dismisses Administrator's complaint which alleged that Alan E. Rich violated certain provisions of the Civil Air Regulations. (Aug. 26)

No. 5123 grants the Administrator of Civil Aeronautics leave to withdraw a complaint in the matter of Norman E. Brunquist, holder of a student certificate. (Aug. 26)

Regulations

Amdt. 25–2 ..... *Effective Sept. 11, 1946*

Parachute Technician Certificates—§ 25.700 of the Civil Air Regulations is amended to read as follows:

25.700 Existing certificates. Any person who, on January 21, 1943, possessed a currently effective mechanic certificate with parachute rigger rating may at any time prior to December 31, 1947, secure upon application a parachute technician certificate of: (a) parachute rigger grade with appropriate ratings; or (b) a higher grade with appropriate ratings upon demonstrating to the Administrator that he is able to meet the standards currently prescribed in the Civil Air Regulations for the issuance of such grade and ratings.

Amdt. 25–3 ..... *Effective Sept. 11, 1946*

Parachute Technician Military Competence—§ 25.16 of Part 25 of the Civil Air Regulations is amended as follows:

By deleting the words "60 days" and inserting in lieu thereof the words "12 months."

Amdt. 41–2 ..... *Effective Sept. 13, 1946*

Clarification of Section 41.2731—§ 41.2731 of the Civil Air Regulations is amended by striking the word "airport" and inserting in lieu thereof the word "runway."

Amdt. 61–1 ..... *Effective Sept. 13, 1946*

Clarification of Section 61.7124—§61.7124 of the Civil Air Regulations is amended by striking the word "field" and inserting in lieu thereof the word "runway."

Reg. 373 ..... *Effective August 23, 1946*

Authorizes the Administrator of Civil Aeronautics to issue temporary airworthiness certificates for the ferrying of certain surplus military aircraft to the United States.

(1) Certain surplus aircraft of the armed forces now based in foreign countries will be sold in those countries to citizens of the United States and that it will be necessary for such aircraft to be flown to the United States in order to be modified so as to meet the airworthiness standards prescribed for aircraft by the Civil Air Regulations;

(2) The Administrator is establishing offices in many foreign countries which can properly control the issuance of temporary airworthiness certificates for such aircraft;

(3) The Administrator will designate appropriately qualified personnel to inspect any aircraft for which a temporary airworthiness certificate is issued to insure that it is in a good state of preservation and safe for the ferrying flight authorized.

Now therefore, The Civil Aeronautics Board makes and promulgates the following Special Civil Air Regulation to become effective August 23, 1946;

The Administrator is authorized to issue temporary airworthiness certificates valid only for ferry flights by civil aircraft of the United States from the location at which the certificate is issued to a point at which modification may be made if the aircraft meets the following requirements:

(a) The aircraft is of a basic model which is essentially the same as a civil aircraft for which an approved type certificate has been issued by the Administrator;

(b) The aircraft was manufactured for the military services of the United States and upon reasonable modification can fully comply with the airworthiness requirements of the Civil Air Regulations; and

(c) Upon inspection and examination by duly qualified personnel designated by the Administrator there appear to be no unairworthy characteristics which would prevent a safe ferrying operation.

In issuing such certificates the Administrator shall include such terms, conditions and limitations as to crew members, equipment, operating conditions and limitations as are necessary to assure safe operation of the aircraft for this special purpose.

This Special Regulation shall terminate September 1, 1947, and no certificate issued hereunder shall be valid after October 1, 1947.

Reg. No. 376 ..... *Effective Sept. 10, 1946*

Applications for Certificates of Public Convenience and Necessity Amendment No. 5 of Section 238.1 of the Economic Regulations. Paragraph (d) of Section 238.1 of the Economic Regulations, is amended by inserting at the end thereof the following subparagraphs (7) and (8):

(7) If applicant does not hold a certificate of public convenience and necessity authorizing air transportation, a statement as to whether or not applicant is currently engaged in air transportation pursuant to the authority granted by Section 292.1 of the Economic Regulations.

(8) If the application shows, pursuant to subparagraph (7) above, that the applicant is currently engaged in air transportation pursuant to the authority granted by Section 292.1 of the Economic Regulations, a statement that all reports due under said Section 292.1 from the applicant have been filed with the Board and the date or dates thereof. No proceedings other than those necessary for amendment or dismissal shall be had on any application which fails to comply with this subparagraph (8) or discloses failure by the applicant to file such a required report while default in filing such report continues.

Reg. 377 ..... *Effective Sept. 16, 1946*

The Civil Aeronautics Board, acting pursuant to the Civil Aeronautics Act of 1938, as amended, particularly sections 205(a) and 405(m) thereof, hereby makes and promulgates the following regulation; finds that notice and public procedure thereon are unnecessary for the reason that such regulation is occasioned by reorganization of air postal offices within the Post Office Department and involves merely minor and technical amendment of existing authorizations which do not affect the general public; and finds that such regulation shall take effect in less than thirty days after publication thereof in order that the authorizations

(See Regulations page 135)

Air Regulations . . . *As of October 1, 1946*

Title	No.	Part: Price	Part: Date	Part: No. of Amendments	Manual: Price	Manual: Date	Manual: No. of Amendments
Aircraft							
Airworthiness Certificates	01	$0.05	10/15/42	1	None	None	.....
Type and Production Certificates	02	Free	7/1/46	.....	$0.10	3/15/45	.....
Airplane Airworthiness—Normal, Utility, Acrobatic, and Restricted Purpose Categories	03 [1]	Free	11/13/45	.....	None	None	.....
Airplane Airworthiness	04	.15	11/1/43	4	.45	7/1/44	2
Airplane Airworthiness Transport Categories	04–0 [1]	Free	11/9/45	1	None	None	.....
Rotorcraft Airworthiness	06	.10	5/24/46	.....	None	None	.....
Engine Airworthiness	13	.05	8/1/41	.....	None	None	.....
Propeller Airworthiness	14	.05	7/15/42	1	.15	5/14/46	.....
Equipment Airworthiness	15	.05	5/31/46	.....	No stock	7/1/38	.....
Radio Equipment Airworthiness	16	.05	2/13/41	.....	No stock	2/13/41	.....
Maintenance, Repair, and Alteration of Aircraft, Engines, Propellers, Instruments	18	.05	9/1/42	.....	.50	6/1/43	.....
Airmen							
Pilot Certificates	20	.05	7/1/45	3	None	None	.....
Airline Pilot Rating	21	.05	10/1/42	3	None	None	.....
Lighter-than-air Pilot Certificates	22	.05	10/15/42	1	None	None	.....
Mechanic Certificates	24	.05	7/1/43	1 [2]	None	None	.....
Parachute Technician Certificates	25	.05	12/15/43	3	None	None	.....
Traffic Control Tower Operator Certificates	26	.05	10/10/45	1	None	None	.....
Aircraft Dispatcher Certificates	27	.05	7/1/46	[3]	None	None	.....
Physical Standards for Airmen	29	.05	1/10/46	.....	None	None	.....
Operation Rules							
Air Carrier Operating Certification	40	.10	10/10/44	8 [4]	None	None	.....
Scheduled Air Carrier Operations Outside Continental U. S.	41	.05	5/1/46	3	None	None	.....
Nonscheduled Air Carrier Certification and Operation Rules	42	.05	8/1/46	2	None	None	.....
General Operation Rules	43	.05	7/1/45	5	None	None	.....
Foreign Air Carrier Regulations	44	.05	7/1/45	.....	None	None	.....
Transportation of Explosives and other Dangerous Articles	49	.05	7/1/45	.....	None	None	.....
Air Agencies							
Airman Agency Certificates	50	.05	4/30/46	.....	.15	5/15/46	.....
Ground Instructor Rating	51	.05	12/15/43	1	None	None	.....
Repair Station Rating	52	.05	10/1/42	.....	Free	2/41	.....
Mechanic School Rating	53	.05	8/1/42	1	Free	5/40	.....
Parachute Loft Certificates and Ratings	54	.05	1/21/43	.....	None	None	.....
Air Navigation							
Air Traffic Rules	60	.05	8/1/45	2 [5]	.15	10/45	.....
Scheduled Air Carrier Rules	61	.10	8/1/46	2 [5]	None	None	.....
Miscellaneous							
Rules of Practice Governing Suspension and Revocation Proceedings	97	Free	8/9/46	.....	None	None	.....
Definitions	98	.05	10/15/42	.....	None	None	.....
Mode of Citation	99	Free	11/15/40	.....	None	None	.....
Regulations of the Administrator							
Aircraft Registration Certificates	501	Free	3/31/43	.....	None	None	.....
Recordation of Aircraft Ownership	503	Free	3/31/43	.....	None	None	.....
Notice of Construction or Alteration of Structures on or near Civil Airways	525	Free	7/23/43	.....	None	None	.....
Seizure of Aircraft	531	Free	12/8/41	.....	None	None	.....
Reproduction and Dissemination of Current Examination Materials	532	Free	1/15/43	.....	None	None	.....

[1] Certain aircraft may comply with the provisions of this part or the 11/1/43 edition of Part 04. [2] Special regulations 340 and 340A. [3] Special regulation 355. [4] Special regulations 319, 319C, and 361A. [5] Special regulation 361A.

Note: Those parts and manuals for which there is a price are obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Remittances should be by check or money order, payable to the Superintendent. Currency is sent at sender's risk. Amendments and free Parts are obtained from the Publications Section, Civil Aeronautics Board, Washington 25, D. C.; free Manuals and Regulations of the Administrator from the CAA Office of Aviation Information, Dept of Commerce, Washington 25, D. C.

Domestic and Territorial Air Carrier Statistics

Operations for August 1946

Prepared from official reports submitted to the Civil Aeronautics Board, by the carriers listed

Operator and routes	Revenue miles flown	Revenue passengers carried *	Revenue passenger-miles flown	Express and freight carried (tons)	Ton-miles flown		Passenger seat-miles flown	Revenue passenger load factor (percent)
					Express	Freight		
All American Aviation, Inc., Pittsburgh-Huntington, Cincinnati, Jamestown, Williamsport, Philadelphia—**Total**	**160,918**	**0**	**0**	**11.9**	**1,335**	**0**	**0**	–
American Airlines, Inc.—**Total**	**5,710,469**	**266,273**	**128,555,324**	**1,858.0**	**381,410**	**595,211**	**150,446,048**	**85.45**
Los Angeles-Dallas	1,625,100	42,126	36,958,090	186.0	72,439	145,358	40,117,129	92.13
Boston-Cleveland; New York/Newark-Chicago	1,151,682	68,749	25,792,058	662.0	140,696	131,725	29,620,667	87.07
Boston-New York/Newark	388,041	55,572	9,215,420	262.0	18,854	18,760	11,347,018	81.21
Cleveland-Nashville	150,985	12,924	2,678,392	72.0	6,840	9,727	3,122,240	85.78
New York/Newark-Fort Worth or Oklahoma City	1,526,707	74,251	35,145,374	347.0	101,760	157,605	43,110,737	81.52
Washington-Chicago	240,365	13,783	5,705,693	92.0	13,263	22,701	6,938,066	82.24
Chicago-Fort Worth	415,845	22,378	9,762,457	137.0	27,069	42,000	12,422,125	78.59
Buffalo-Toronto	12,842	3,463	238,947	7.0	489	0	268,686	88.93
El Paso, Fort Worth or Dallas-Mexico City	198,902	3,683	3,058,893	93.0	0	67,335	3,499,380	87.41
Braniff Airways, Inc.—**Total**	**1,101,949**	**56,650**	**22,500,239**	**159.5**	**48,607**	**22,394**	**28,829,133**	**78.05**
Chicago-Dallas	462,402	22,734	10,887,898	78.7	30,662	18,465	14,095,911	77.24
Denver-Memphis; Dallas-Brownsville or Galveston	569,613	35,073	10,485,918	65.5	16,556	3,679	13,269,092	79.03
Houston-Nuevo Laredo or Corpus Christi	69,934	5,399	1,126,423	15.3	1,389	250	1,464,130	76.93
Caribbean-Atlantic Airlines, Inc., San Juan-Mayaguez or Christiansted—**Total**	**28,471**	**5,536**	**344,531**	**6.0**	**0**	**487**	**803,979**	**42.85**
Chicago & Southern Air Lines, Inc.—**Total**	**784,577**	**38,124**	**14,381,628**	**124.0**	**43,671**	**1,915**	**21,051,848**	**68.32**
Chicago-New Orleans	410,085	23,533	8,310,975	71.0	28,280	1,024	12,422,448	66.90
Houston-Detroit	374,492	18,020	6,070,653	53.0	15,391	891	8,629,400	70.35
Colonial Airlines, Inc—**Total**	**348,127**	**19,129**	**5,492,678**	**23.2**	**5,495**	**0**	**6,711,863**	**81.84**
Washington-Montreal or Ottawa	97,278	4,295	985,792	6.8	1,066	0	1,536,020	64.18
New York-Burlington-Montreal or Ottawa	250,849	14,834	4,506,886	16.4	4,429	0	5,175,843	87.08
Continental Air Lines, Inc.—**Total**	**563,373**	**23,220**	**8,860,482**	**46.6**	**5,907**	**8,928**	**11,740,970**	**75.47**
El Paso-Denver, San Antonio & Tulsa	288,438	13,857	4,204,557	26.6	4,107	1,797	6,045,748	69.55
Pueblo-Tulsa	44,531	4,465	733,299	3.0	304	106	932,157	78.67
Denver-Kansas City	230,404	8,889	3,922,626	17.0	1,496	7,025	4,763,065	82.36
Delta Air Lines, Inc.—**Total**	**1,023,771**	**52,731**	**20,839,014**	**98.0**	**41,292**	**3,146**	**28,211,595**	**73.87**
Fort Worth-New Orleans, Charleston or Savannah	541,234	35,642	11,169,861	55.0	19,323	971	14,422,152	77.45
Chicago-Miami	482,537	24,852	9,669,153	43.0	21,969	2,175	13,789,443	70.12
Eastern Air Lines, Inc.—**Total**								
Boston-Brownsville or San Antonio								
Miami-Boston or Detroit								
Chicago-Jacksonville								
Miami-Tallahassee; Tallahassee-Atlanta or Nashville								
Hawaiian Airlines, Ltd., Honolulu-Hilo or Port Allen—**Total**	**228,055**	**30,432**	**4,346,255**	**297.2**	**10,757**	**33,722**	**4,832,865**	**89.93**
Inland Air Lines, Inc.—**Total**	**172,176**	**9,012**	**2,504,288**	**12.7**	**2,512**	**562**	**3,474,116**	**72.08**
Denver-Great Falls	107,592	6,912	1,715,494	9.4	1,889	387	2,243,245	76.47
Huron-Cheyenne	64,584	3,039	788,794	3.3	623	175	1,230,871	64.08
Mid-Continent Airlines, Inc.—**Total**	**468,965**	**23,434**	**7,084,849**	**29.8**	**9,660**	**0**	**9,645,239**	**73.45**
New Orleans-Minneapolis-Minot	339,316	17,819	5,200,571	25.4	8,181	0	6,949,183	74.84
Minneapolis-Kansas City & St. Louis	129,649	6,206	1,884,278	4.4	1,479	0	2,696,056	69.89
National Airlines, Inc.—**Total**	**840,389**		**16,713,842**	**26.7**	**14,160**	**0**	**22,263,163**	**75.07**
New York/Newark-Miami & Key West	592,995		12,519,652	18.1	9,862	0	16,445,710	76.13
New Orleans-Jacksonville & Miami	247,394		4,194,190	8.6	4,298	0	5,817,453	72.10
Northeast Airlines, Inc., New York/Newark-Caribou or Boston; Boston or Burlington-Montreal; Bangor-Moncton—**Total**	**441,845**	**49,117**	**10,049,232**	**52.6**	**8,746**	**0**	**14,280,375**	**70.37**
Northwest Airlines, Inc., N. Y. & Chicago-Seattle & Portland; Grand Forks-Winnipeg (Routes consolidated July 29, 1946)—**Total**	**1,878,967**	**76,259**	**45,261,737**	**182.1**	**104,601**	**0**	**53,457,525**	**84.67**
Pennsylvania-Central Airlines Corporation—**Total**	**1,633,896**	**153,912**	**41,167,691**	**568.0**	**100,913**	**24,941**	**56,791,671**	**72.49**
Norfolk-Detroit	660,728	97,539	19,087,003	251.0	40,663	11,116	24,937,654	76.54
Detroit-Milwaukee or Chicago	389,058	47,827	9,101,587	182.0	31,184	5,131	12,624,235	72.10
Washington-Buffalo	82,655	5,798	1,327,328	18.0	2,019	589	1,734,421	76.53
Detroit-Sault Ste. Marie	70,540	7,359	1,182,759	19.0	2,587	21	1,477,353	80.06
Pittsburgh-Buffalo	56,506	4,618	825,147	17.0	2,265	738	1,180,929	69.87
Norfolk-Knoxville	58,849	4,486	1,010,647	7.0	1,266	1,175	1,232,482	82.00
New York/Newark-Birmingham	315,560	24,687	8,633,220	74.0	20,929	6,171	13,604,597	63.46
Pioneer Air Lines, Inc., Houston-Amarillo—**Total**	**102,381**	**2,277**	**654,666**	**2.6**	**870**	**0**	**1,549,824**	**42.24**
Transcontinental & Western Air, Inc.—**Total**	**4,192,429**	**97,415**	**76,443,954**	**1,115.0**	**371,032**	**247,879**	**87,453,928**	**87.41**
New York/Newark-Los Angeles	2,916,753	78,899	53,851,651	627.0	264,911	165,738	61,070,397	88.18
Dayton-Chicago	80,385	6,082	1,290,388	77.0	10,612	6,696	1,553,535	83.06
Winslow-San Francisco	312,987	15,731	5,272,664	65.0	13,589	11,674	6,606,816	79.81
Kansas City-New York/Newark or Pittsburgh	547,819	18,902	10,007,961	206.0	60,128	48,918	11,273,559	88.77
St. Louis-Detroit	175,895	10,953	3,149,696	104.0	15,943	9,149	3,651,225	86.26
Dayton-Washington	97,291	5,503	1,768,528	17.0	2,987	1,981	2,033,798	86.96
Pittsburgh-Boston	61,299	2,897	1,103,066	19.0	2,862	3,723	1,264,598	87.23
United Air Lines, Inc.—**Total**	**5,243,646**	**204,872**	**123,747,884**	**1,071.0**	**468,093**	**332,856**	**144,212,621**	**85.81**
New York/Newark-Oakland	3,405,996	111,005	83,816,092	772.0	391,303	286,419	98,690,116	84.93
Salt Lake City-Seattle-Spokane	298,463	15,739	7,117,691	47.0	17,640	9,533	8,214,063	86.65
Seattle-San Diego	1,278,522	71,534	27,149,097	195.0	43,457	30,415	30,476,236	89.08
Denver-Cheyenne	11,328	1,138	109,440	2.0	124	55	245,952	44.50
Seattle-Vancouver	30,128	5,721	691,528	11.0	1,312	3	783,236	88.29
Toledo-Washington	96,090	5,458	2,123,163	9.0	2,520	799	2,545,617	83.40
Cleveland-Boston	104,878	5,068	2,454,142	33.0	11,737	5,547	2,862,786	85.73
Los Angeles-Catalina	18,241	6,825	286,731	2.0	0	85	394,615	72.66
Western Air Lines, Inc.—**Total**	**777,019**	**52,494**	**22,164,455**	**151.6**	**40,599**	**21,877**	**26,886,483**	**82.44**
San Diego-Salt Lake City	264,653	16,172	4,929,960	49.2	10,025	5,680	5,886,881	83.74
Sale Lake City-Great Falls	97,076	5,457	1,591,129	21.9	3,057	2,188	2,033,028	74.72
Great Falls-Lethbridge	10,106	1,139	165,298	1.7	192	18	210,410	78.56
Los Angeles-San Francisco or Oakland	201,432	23,796	7,781,292	46.3	5,392	9,755	9,629,496	80.81
Los Angeles-Denver	203,752	10,352	7,696,776	32.5	21,933	4,236	9,126,668	84.33
Total								

* The total passengers carried for each airline is an unduplicated figure.

Domestic and Territorial Air Carrier Statistics—Concluded

Operations for the First Eight Months of 1946 As Compared With the Same Period of 1945

Operator	Revenue miles flown January–August		Revenue passengers carried (unduplicated) January–August		Revenue passenger miles flown January–August		Express and freight carried (tons) January–August	
	1946	1945	1946	1945	1946	1945	1946	1945
All American Aviation, Inc.	1,161,701	959,952	0	0	0	0	55.4	53.6
American Airlines, Inc.	39,491,686	28,880,891	1,517,589	815,640	782,010,137	475,854,535	9,813.0	10,053.5
Braniff Airways, Inc.	7,309,420	5,040,488	337,632	203,387	136,178,321	52,436,165	1,069.8	740.4
Caribbean-Atlantic Airlines, Inc.	221,158	175,053	31,950	19,188	1,919,275	1,179,807	55.9	99.5
Chicago & Southern Air Lines, Inc.	5,273,197	3,125,009	228,456	116,481	91,163,801	50,565,900	739.9	610.2
Colonial Airlines, Inc.	2,032,489	1,239,582	101,973	56,416	30,167,405	16,946,648	123.2	77.0
Continental Air Lines, Inc.	3,583,830	2,194,815	141,730	74,429	51,033,128	28,576,473	177.9	159.5
Delta Air Lines, Inc.	6,902,748	3,603,112	319,233	168,210	132,181,766	64,516,227	617.0	453.2
Eastern Air Lines, Inc.	.....	16,377,216	.....	553,786	.....	277,191,704	.....	2,824.0
Hawaiian Air Lines, Ltd.	1,203,814	762,160	161,481	99,735	23,016,431	14,296,872	1,876.1	2,150.9
Inland Air Lines, Inc.	1,335,688	1,058,991	54,773	38,197	14,902,070	11,350,793	52.5	35.4
Mid-Continent Airlines, Inc.	3,297,705	1,872,349	161,865	86,207	49,013,526	23,017,174	232.2	136.0
National Airlines, Inc.	5,788,552	3,776,607	.....	99,687	106,324,071	45,926,557	253.1	186.6
Northeast Airlines, Inc.	2,498,287	1,242,910	257,083	95,222	52,321,131	20,347,622	258.0	134.6
Northwest Airlines, Inc.	11,768,391	7,134,692	393,785	198,813	240,351,008	124,340,843	1,164.8	1,062.4
Pennsylvania-Central Airlines Corp.	11,414,320	6,623,145	902,742	457,492	245,022,831	110,341,643	3,126.0	2,790.6
Pioneer Air Lines, Inc.	642,849	41,505	12,088	101	3,531,389	31,901	11.3	2
Transcontinental & Western Air, Inc.	29,516,291	19,682,039	684,124	352,397	551,368,111	320,045,674	6,794.0	6,308.6
United Air Lines, Inc.	35,651,254	24,125,957	1,163,339	467,173	689,727,145	363,293,842	5,621.4	4,303.7
Western Air Lines, Inc.	5,370,391	3,233,907	303,702	138,894	117,862,449	57,829,598	815.2	483.9
Total	.....	131,150,380	.....	4,041,455	.....	2,058,089,978	.....	32,663.8
Index (1945=100)	.....	100.00	.....	100.00	.....	100.00	.....	100.00

Operator	Ton miles flown				Passenger seat-miles flown January–August		Revenue passenger load factor (percent) January–August	
	Express January–August		Freight [a] January–August					
	1946	1945	1946	1945	1946	1945	1946	1945
All American Aviation, Inc.	6,928	8,365	0	0	0	0	–	–
American Airlines, Inc.	2,662,223	4,504,166	2,672,857	276,227	912,335,257	528,374,645	85.72	90.06
Braniff Airways, Inc.	329,149	359,055	116,639	0	162,278,118	100,469,817	83.92	52.19
Caribbean-Atlantic Airlines, Inc.	2,172	6,899	2,102	1,313	3,969,442	2,140,625	48.35	55.12
Chicago & Southern Air Lines, Inc.	271,857	253,500	1,915	0	121,888,906	64,701,679	74.79	78.15
Colonial Airlines, Inc.	35,379	22,178	0	0	40,859,639	21,680,823	73.83	78.16
Continental Air Lines, Inc.	41,145	70,599	26,114	0	74,609,281	35,721,874	68.40	80.00
Delta Air Lines, Inc.	292,223	166,955	24,647	0	173,926,159	74,846,604	76.00	86.20
Eastern Air Lines, Inc.	.....	1,631,631	.....	18,038	.....	317,562,779	.....	87.29
Hawaiian Air Lines, Ltd.	72,746	285,616	212,448	41,903	25,548,966	15,134,760	90.09	94.46
Inland Air Lines, Inc.	11,875	7,748	778	0	23,428,298	15,686,370	63.61	72.36
Mid-Continent Airlines, Inc.	81,651	39,644	0	0	64,683,954	31,677,442	75.77	72.66
National Airlines, Inc.	146,598	92,378	0	0	130,630,545	50,825,578	81.39	90.36
Northeast Airlines, Inc.	44,809	24,734	0	0	72,804,717	28,203,094	71.87	72.15
Northwest Airlines, Inc.	659,458	581,445	0	0	275,620,938	141,181,453	87.20	88.07
Pennsylvania-Central Airlines Corp.	684,890	602,671	25,549	0	325,462,782	136,367,986	75.28	80.91
Pioneer Air Lines, Inc.	3,814	41	0	0	6,414,036	82,413	55.06	38.71
Transcontinental & Western Air, Inc.	2,558,453	3,172,693	1,292,578	6,945	636,770,220	353,489,522	86.59	90.54
United Air Lines, Inc.	3,011,087	3,307,121	1,811,562	0	798,651,053	379,142,470	86.36	95.82
Western Air Lines, Inc.	225,515	202,483	78,243	0	147,789,723	66,329,322	79.75	87.19
Total	.....	15,339,922	.....	344,426	.....	2,363,619,256	.....	87.07
Index (1945=100)	.....	100.00	.....	100.00	.....	100.00	.....	100.00

	January	February	March	April	May	June	July	August	Total
Passengers carried (undup.) total revenue and non-revenue	661,480	667,376	828,276	953,000	103,212	1,173,699	1,218,458	.....	.....
Passenger miles flown (total revenue and non-revenue)	336,897,337	337,356,042	413,367,422	469,363,128	521,643,616	573,185,511	582,226,933	.....	.....

[a] Express and freight ton-miles combined under express prior to July, 1945.

NOTE.—Effective January 1, 1946, all revenue traffic statistics are reported to the CAB on the basis of direct airport-to-airport distances. For purposes of comparability, those traffic statistics reported prior to that date on the basis of course-flown distances have been converted to reflect direct airport-to-airport distances.

CAA and CAB Releases

Copies of CAA releases may be obtained from the CAA Office of Aviation Information. CAB releases are obtainable from the Public Information Section of the Board. Both offices are located in the Department of Commerce Building, Washington 25, D. C.

Administration

"Hearings Announced on Proposed Rules and Regulations for Federal Airport Act." Sept. 1.

"Number of Student and Private Pilot Certificates Shows Increase." Sept. 2.

"CAA Book will help Airport Engineers." Sept. 4.

"CAA Announces Airport Hearings for Oct. 31 and Nov. 1." Sept. 7.

"CAA Releases Text of Airport Program Rules." Sept. 7.

"CAA to Guard New Frequencies for Private Fliers After January 1." Sept. 13.

"Survey Shows CAA Trainees Busy in South American Aviation." Sept. 12.

"Former CAA Students Instructing Countrymen." Sept. 20.

Speech given by F. M. Lanter, Administrator for Region 2, Atlanta, Ga.—"Personal Flying in the Southeast." Sept. 12.

Board

Statistics—Operating revenue reports filed by 20 domestic air carriers first 4 months of 1946. Aug. 26.

Statistics—Operating revenue reports filed by 20 domestic air carriers, first 5 months of 1946. Aug. 27.

Statistics—Mileage flown by the 20 domestic airlines for 6-month period ending June 30, 1946. Sept. 4.

Foreign air carrier permit, issued to Linea Aeropostal Venezolana authorizing air service between Maiquetia, Venezuela, and Miami, Fla., via Havana, Cuba, and between Maiquetia and Montreal, Canada, via Havana and New York, N. Y. Sept. 6.

Approval of certain resolutions (IATA) concerning transatlantic airline passenger rates filed with the Board after adoption by the North Atlantic Traffic Conference of the IATA. Sept. 24.

Regulations

(Continued from page 133)

provided therein will be consistent with changes effected by such reorganization:

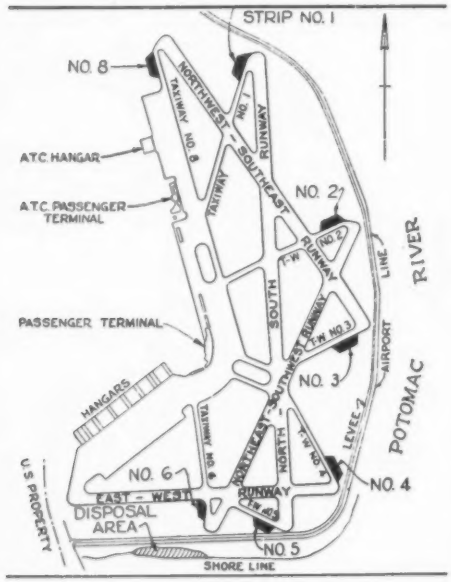
Free Travel for Postal Employees—Amendment No. 8 of Sec. 228.1 of the Economic Regulations. Subparagraphs (3), (4) and (5) of paragraph (a) of Section 228.1 of the Economic Regulations are amended to read as follows:

"(3) The Assistant Postmaster General who at the time is charged with the duty of the general management of post offices; the Assistant Postmaster General who at the time is assigned the supervision of Air Postal Transport, his Confidential Assistant, his Under Second Assistant, and his four Deputy Second Assistants; the Solicitor and the Assistant Solicitor of the Post Office Department."

"(4) The Director of Domestic Air Postal Transport and the Director of Foreign Air Postal Transport."

"(5) The five Regional Superintendents, and the five Assistant Regional Superintendents, Air Postal Transport, located respectively at New York, N. Y., Chicago, Ill., San Francisco, Calif.; Atlanta, Ga., and Fort Worth, Texas." (Secs. 205(a) and 405(m), 52 Stat. 984 and 997, 49 U.S.C., 425(a) and 485.)

Taxiway Parking Strips Speed Plane Take-offs At National Airport



Faster dispatching of airplanes at Washington National Airport in instrument weather has been accomplished with the construction of eight special taxiway parking strips for waiting planes at the ends of take-off runways.

Planes waiting for take-off instructions from the tower heretofore lined up in single file along the taxiway, and many were delayed because they could not always be lined up in the order of their clearances. Now three planes line up on the generous-sized waiting strip in such a way that any one can be cleared for take-off by the tower controller without disturbing the others. A fourth waits on the taxiway.

The new system increases the flexibility of airport traffic control, according to Hervey Law, manager of Washington National Airport, since it enables the controller to maintain the proper time separation between planes taking off in instrument weather.

The locations of the new parking strips are shown on the diagram above and indicated by numbers.

World Planning Charts on Sale At Coast and Geodetic Survey

Forty-three charts in the World Planning series, useful in plotting air routes and also for general geographic study, may now be purchased by the public. The charts, held confidential until recently, were published by the Coast and Geodetic Survey during the war for the Army Air Forces.

They are produced on the Lambert Conformal Conic Projection, with the stereographic projection employed for the polar regions. The projections are computed and the charts so arranged that the entire series can be combined to form an approximate globe by joining the several segments formed by the Lambert projection cones. These charts constitute the most important available series portraying coordinated geographic information for the entire earth's surface including the oceans and polar regions.

The individual charts are reproduced on paper 32 by 48 inches in size. They are being distributed by the Coast and Geodetic Survey, Washington 25, D. C., at 40 cents per copy. An index to the series will be furnished free upon request.

"Good Neighbor" Training Program In South America Pays Dividends

Aviation in the twenty other American republics is profiting daily from the "good neighbor" training program conducted by the United States during the past five years.

700 at Work—An estimated 700 of the 1,000 young men trained by the Inter-American Aviation Training Program of the Civil Aeronautics Administration now are at work in aviation enterprises, from which the last vestiges of Axis power control have disappeared, according to a comprehensive survey of the results of this U. S. activity, recently completed by Theodore C. Uebel, Training Analyst for CAA's Office of Aviation Training. Their importance and effectiveness in the aviation of their native countries grows daily and appreciably, Mr. Uebel reported to William A. M. Burden, Assistant Secretary of Commerce, and T. P. Wright, Administrator of Civil Aeronautics; and our investment is paying dividends in Western Hemisphere flying and political unity.

Made Us Friends—Mr. Uebel visited all of the republics from which trainees had been brought to the United States. He interviewed personally the graduates, their employers, government officials concerned with both civilian and military flying, and came to the conclusion that "it was the sudden and timely provision of this training by the United States that proved most valuable to the development of their national civil aviation." He found the consensus throughout the countries visited to be that this training promoted an internal unity in the aviation enterprises of each country, and that a powerful band of friendship with the United States had been formed.

Another U. S. influence appears in the annual contest by the Aero Club of Guyaquil, Ecuador, to select "Senorita Aviacion". The income from this contest helps to support private flying around Ecuador's largest seaport. This same club makes a regular practice of flying medicines and medical aid to remote areas inaccessible except by air.

What They're Doing—In a brief roundup of CAA's inter-American training influences in the various countries, Mr. Uebel cited the following:

Several CPT graduates distinguished themselves as members of the Brazilian Air Force, fighting wing to wing with our pilots over Italy.

In Haiti and Honduras, all key positions in the civil air services are held by inter-American graduates, and they are transplanting CPT methods there.

In Guatemala, the ground instructor of the air force is a graduate of our training, and chairman of the committee drafting that country's first civil air regulations.

In the Dominican Republic a mechanic graduate came home to an immediate job. He was put in charge of the maintenance for the local airline.

In Honduras, Mr. Uebel says you could imagine yourselves at Purdue University, or at the University of Kentucky, because the whole atmosphere is that of a CPT training center. The chief of flight training, the chief of operations, and three flight and ground school instructors are CPT grads, and CAA methods prevail.

In Panama, a graduate who had been training as a mechanic with a U. S. airline in Miami is now airport administrator of the national airport and flight instructor in the national aviation school. He had taken flight training in the U. S. on his own time.

Three captains in the Colombian Air Force, all trained in the U. S., are the founders, chief stockholders and pilots of a new national airline.

Two recently returned trainees are in charge of air traffic control at the Carrasco National Airport in Uruguay.

Many of our trainees in Argentina have weathered political disturbances and steadily built up their own aviation enterprises, often using old equipment.

In Monterey, Mexico, the principal flight training school is run by a graduate who has installed CPT methods in toto.

An air traffic control training school is being organized in Venezuela by an airways technician graduate whose key instructors will be other CAA graduates.

In Santiago, Chile, the first aero-repair shop for private planes has been established and is being operated by three graduates—one a pilot, another a mechanic, and the third, appropriately, an engineer.

More Air Activity—The governments below the border are participating increasingly in civil aviation activity, and these former CAA trainees are being assigned to more and more important roles in developing the civilian phase of Latin American aviation, Mr. Uebel reports. His recommendations for future U. S. government training of personnel from these countries stress specialized training on a self-supporting basis.

Mr. Uebel recently was appointed International Liaison Officer in the CAA Division of International Activities.

Soil and Air Photo Handbook Useful to Airport Engineers

A comprehensive engineering handbook on soils in relation to airport construction, and the use of aerial photographs in selecting airport sites, is now available for two dollars from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

The book, resulting from a cooperative study by the Technical Development Service of the Civil Aeronautics Administration and Purdue University, is entitled "The Origin, Distribution, and Airphoto Identification of United States Soils, with Special Reference to Airport and Highway Engineering." It was written by David S. Jenkins, formerly of the Civil Aeronautics Administration, and D. J. Belcher, L. E. Gregg, and K. B. Woods of Purdue University.

Publication of the handbook coincides with the start of a seven-year federal airport construction program. It is expected to find wide use among engineers responsible for airport planning and site selection.

The publication is in two parts. The first part discusses soil origin in relation to its mechanical characteristics, and divides all American soils into seven engineering types, as compared with more than 3,000 classifications from an agricultural standpoint. It covers aerial photographic interpretation of soil types, and practical application to problems of location, construction, and design of airports and includes an extensive bibliography from which an engineer may select reference material applicable to his own locality, a colored soil map of the United States, and charts illustrating the air photo technique by which soils are identified.

The second is an album of 75 sample photographs covering most of the United States. Photographs covering about 80 per cent of the whole United States are available through the Department of Agriculture. Both parts are included in the sale price of two dollars.

43,387 Miles of Federal Airways

On July 1 the CAA had 43,387 miles of airways in the United States proper and Alaska equipped with air navigation facilities. Estimated mileage by July 1, 1947, is 47,911.

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